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## THREE GRAND TRIPS

—TO THE—

# Yellowstone ✳ National ✳ Park.

## LEAVING BOSTON JULY 23, AUG. 20, AND SEPT. 10.

W. RAYMOND,

I. A. WHITCOMB,

296 Washington Street (opposite School Street), Boston, Mass.

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SEASON OF 1888.

# THREE GRAND TRIPS

TO THE

# Yellowstone * National * Park,

**With a Complete Round of all the Points of Interest in**

## AMERICA'S WONDERLAND,

And ample time for a thorough inspection of its many marvels. Incidental visits to Niagara Falls, Chicago, Milwaukee, the Dells of the Wisconsin, St. Paul, Minneapolis, the Falls of Minnehaha, Lake Minnetonka, the Famous "Bad Lands" of Dakota, Etc.

**ALL RAILWAY TRAVEL IN PALACE SLEEPING AND DRAWING-ROOM CARS. THE PARTY TO BE LIMITED IN NUMBERS.**

DATES OF DEPARTURE AND RETURN:

**First Party to leave Boston Monday, July 23, return Thursday, August 16.**
**Second Party to leave Boston Monday, August 20, return Thursday, Sept. 13.**
**Third Party to leave Boston Monday, Sept. 10, and to make a Tour Across the Continent, returning through California.**

***Price of Tickets for the Yellowstone National Park Trip** (First and Second Parties), all Traveling and Hotel Expenses included, $275.00.*

W. RAYMOND, I. A. WHITCOMB,

**296 Washington St. (opposite School St.), Boston, Mass.**

# THREE EXCURSIONS

TO THE

# YELLOWSTONE NATIONAL PARK.

## 1888.

JULY 23. AUGUST 20. SEPTEMBER 10.

THE Yellowstone National Park is a region full of natural wonders, of which explorers and travelers have told the world something; yet nothing short of a personal visit can serve to aid the mind in a comprehension of its marvels.

Language is feeble before the majesty and beauty of the Great Cañon of the Yellowstone, flecked with all the colors of a gorgeous sunset; the mysterious loveliness of the springs, which have carved for themselves fonts of the most exquisite form and finish; and, above all, before the gigantic geysers, huge fountains of hot water which cast their steaming columns hundreds of feet into the air. Words which have served to ennoble lesser objects are weak and ineffectual in describing such a vast collection of marvels. A distinguished writer, in speaking of the country embraced in the park, says: "It is a region of wonder, terror, and delight. Nature puts forth all her powers, and her moods are ever changing from grave to gay, from lively to severe. Here tremendous geysers shoot up their mighty fountains, causing the earth to tremble by their

violence; countless hot springs, indescribable in their strange beauty, show depths as translucent as the ambient air; pools of seething mud, casting up jets of colored paste, bewilder by their curious activity. And as if these were not sufficient, here, too, is to be seen the most varied and lavish display of picturesque scenery. The park unfolds a succession of pictures, each more striking than the other. There are serried, snow-mantled mountains, profound cañons, mighty cataracts, verdant valleys, beautiful woods, sylvan streams, foaming cascades, and mirror-like lakes." The entire region was, at a comparatively recent geological period, the scene of remarkable volcanic activity, the last stages of which are still visible in the hot springs and geysers. In the number and magnitude of these, the park surpasses all the rest of the world. There are probably fifty geysers throwing columns of water to the height of from 50 to 200 feet, and from 5,000 to 10,000 springs depositing either lime or silica.

It was not until very recently that the Yellowstone National Park was made fairly accessible to tourist travel. Even after the railroad had reached the borders of the park, traveling within the vast domain was difficult on account of the insufficiency of the government appropriations to provide roads or trails. Under such circumstances we declined to take tourist parties to the park, although urged to do so for several years, feeling that even all its wonders would not compensate the traveler for discomforts he must inevitably encounter. Under the able supervision of Lieutenant D. C. Kingman, of the United States Engineer Corps, new roads and bridges were constructed; and the opening of hotels and fixed camps at the chief centres of interest likewise contributed to the comfort of the traveler. In view of the great progress made in both directions, we were induced in the summer of 1885 to organize two excursion parties, of limited numbers, for a round of the park. These were planned with a liberal allowance of time, twice the number of days being allotted to the park

than tourists generally were accustomed to give themselves. This secured time for rest as well as for sight-seeing, and the incidental journeys were rendered much less fatiguing than would have been the case if they had been crowded together with but slight intervals of sojourn by the way. These tours were carried out in the most satisfactory manner, as many well-known residents of the East can attest. In 1886 and again in 1887 the trips were repeated with equally gratifying results. Our excursions this year are sure to prove still more enjoyable to the participants. Important improvements have been carried out within the park, tending to make the journeys from point to point more comfortable, and the sojourns at all the chief centres of attraction more satisfactory. The roads have been shortened and improved, and much more sight-seeing can be accomplished in a given time than formerly. The hotel service is under very excellent management. A thoroughly responsible party of capitalists took charge of this latter feature last year, and every means has been taken to meet the demands of increased travel. New buildings were erected and old ones enlarged. This change conduced largely to the comfort of tourists. The transportation facilities (under the direction of Mr. George W. Wakefield) have also been put in the best condition, and the stage journeys are made with entire safety and comfort. Notwithstanding these largely increased accommodations and facilities for travel, we shall take only a limited number of passengers in each party. Every person will be entitled to a double berth in the sleeping-cars (half a section). This gives four seats by day for every two persons. The cost of an extra double berth (a whole section for one person) during the trip from Boston back to Boston will be $30.00. Sleeping-cars are used in all the railway journeys except the one from Chicago to Milwaukee (eighty miles), where drawing-room cars, with arm-chairs, are brought into service, and in the short trip from Minneapolis to Lake Minnetonka and return.

## General Plan of the Trips.

In order to make the excursion satisfactory to the traveler in all its details, and to provide for comfortable and easy transit, as well as for a thorough inspection of the park and its manifold wonders, the period of twenty-five days will be allotted to the regular park trip (Excursions Nos. 1 and 2). The dates of leaving Boston for these two trips are Monday, July 23, and Monday, August 20, and the dates of return, Thursday, August 16, and Thursday, September 13. The third excursion includes the same round of the park and in addition a tour across the continent, with a return through California, the tickets for the return journey being good for a winter's stay on the Pacific Coast, if desired.

The outward journey will be made in short and easy stages, stops being provided for at several important points and in places of picturesque interest. Among the places to which visits of inspection will be made before the Yellowstone National Park is reached are the beautiful Dells of the Wisconsin, the famous Falls of Minnehaha, and the picturesque Lake Minnetonka. Brief visits will also be paid to Chicago, Milwaukee, St. Paul, and Minneapolis. The route of approach to the park is over the Northern Pacific Railroad, the Yellowstone Park Branch of which reaches, at Cinnabar, to within seven miles of the Mammoth Hot Springs.

An entire week will be passed within the park. This is a longer time than is usually taken in making a "round of the park." The extra days will be spent at the chief centres of attraction; viz. the Upper Geyser Basin, the Yellowstone Cañon, and the Mammoth Hot Springs, thus affording unusual opportunities for sight-seeing and for an intelligent study of the marvelous phenomena of the geysers and springs, as well as time for rest. In this connection it should be said that the expenses of traveling and sojourning within the park are necessarily high. In view of this fact it would have

been an easy matter to cut down the time, in order to lessen the expense; but we have deemed such a course prejudicial to the best interests of our patrons, and, in place of curtailing the expenditures in that particular, have made the trip a complete one, feeling that the extra time will be fully appreciated. In keeping pace with the improvements in and about the park, however, we have lessened the cost of the excursion tickets very materially. Intelligent travelers will readily see that the excursions have been planned upon a very liberal scale, and that in all particulars our programme is complete. The journeys through the park, about 160 miles altogether, — from Mammoth Hot Springs to the Upper Geyser Basin, and back to the Norris Geyser Basin; thence to the Great Falls and Yellowstone Cañon Falls and Yellowstone Lake, and back to Mammoth Hot Springs, — will be made in comfortable spring-wagons. There are hotels at all the points where halts are to be made for the night. It is no longer necessary to depend upon the primitive accommodations of the "camps." The several hotels are under the admirable management of Mr. E. C. Waters, and cooks and servants are employed to furnish meals; so that the traveler has no need to provide himself with either camping or cooking outfits. The return tickets are good for a much longer period than the excursion covers, and the holder may stop off at principal points or may avail himself of low rates to visit Montana, Idaho, Oregon, Washington Territory, Puget Sound, or Alaska. The third excursion (the date of departure in connection with which is September 10), as already explained, includes a tour of the Pacific Northwest.

## The Route from Boston to Chicago.

The route of the excursion from Boston to Chicago lies over the popular Hoosac Tunnel and West Shore Lines. The train will leave the Fitchburg Railroad station on Causeway street, and traverse that road and the West Shore Railroad to Niagara

Falls and Suspension Bridge. Crossing the Niagara River on the great Suspension Bridge, two miles below the cataract and just above the terrible Whirlpool Rapids, the parties will continue over the Great Western Division of the Grand Trunk Railway *via* Hamilton and London, through a pleasant part of Canada to Point Edward, thence across the St. Clair River at the outlet of Lake Huron, and by the Chicago & Grand Trunk Railway from Fort Gratiot, through Southern Michigan and little corners of Indiana and Illinois, to Chicago.

## In Chicago.

Chicago will be reached Wednesday morning, and there will be a sojourn in that city until the following day, during which time the Sherman House will be made the headquarters of the travelers. This popular hotel is situated at the corner of Clark and Randolph streets, in proximity to the business section of the city, and within easy communication by horse and cable cars of every part of Chicago and its environs. No programme of action has been planned, and the members of the parties will dispose of their time in rest or recreation according to individual preferences. The visits are to be made at a time when the parks are especially inviting. Since the great fire of 1871, when no less than 18,000 buildings, representing the value of $190,000,000, were destroyed, Chicago has assumed a handsomer aspect than ever. The new public buildings and business blocks are among the finest in America. The new Board of Trade Building, at the foot of La Salle street, is a magnificent edifice surmounted by a tall tower. Its cost was about $1,500,000. The great hall, which serves as a grain and pork exchange, is a superb apartment. Visitors are admitted to the gallery. The Court House and City Hall are opposite the Sherman House, between Clark and La Salle streets. The Post Office and Custom House are four blocks below, between

Clark and Dearborn streets. The Exposition Building is in Lake Park, fronting Michigan avenue; and the elegant building lately erected by the Pullman Palace Car Company is in the same vicinity, corner of Adams street and Michigan avenue. The Water Works has two pumping stations — one at the foot of Chicago avenue, on the North Side, and the other at the corner of Ashland avenue and Twenty-second street, on the West Side. The Douglas Monument is on the lake shore, near Thirty-fifth street; the University of Chicago is on Cottage Grove avenue, near by. The park system is very elaborate, and includes about 2,000 acres. Lincoln Park is on the North Side, about two miles distant; Douglas and Central Parks, on the West Side, about four miles; and the South Parks, in the south part of the city, between six and seven miles. The chief approaches to the latter are through the Grand and Drexel boulevards. The river is crossed by thirty-five swinging bridges, and there are two tunnels, these being at Washington and La Salle streets. The Union Stock Yards are in the south part of the city. They cover 350 acres, and are the most extensive in the world, having a capacity for 20,000 cattle, 150,000 hogs, 10,000 sheep, and 1,500 horses. Seventeen different railroads centre in the yards.

## From Chicago to Milwaukee.

There will be an omnibus transfer Thursday morning from the Sherman House to the Union depot (on Canal street, between West Madison and West Adams streets), and at 8.00 A. M. a train will be taken on the Chicago, Milwaukee & St. Paul Railway for Milwaukee. The route extends through a pleasant section of Northeastern Illinois and Southeastern Wisconsin, at no great distance from Lake Michigan, traversing Cook and Lake counties in the former State, and Kenosha, Racine, and Milwaukee counties in the latter.

## In Milwaukee.

This city will be reached at 11.00 A. M., and there will be a transfer by Davis's Omnibus Line from the Union depot to the Plankinton House, corner of Grand avenue and West Water street. The Plankinton, which is famed as one of the finest hotels in the country and one of the very best in the Northwest, — a region especially fortunate in the possession of magnificent public houses, — will be made an abiding-place until the succeeding day. In the afternoon there will be a carriage ride about the city and suburbs, in the course of which the most attractive business and residence portions of Milwaukee, Forest Home Cemetery, and the pleasant bluffs along the lake will be visited.

"The Cream City," so called on account of the color of the bricks of which most of its buildings are constructed, is delightfully situated upon the high shores of Lake Michigan at the mouth of the Milwaukee River; and it is traversed by two other small streams, the Menomonee and Kinnikinnic. The city has a population of about 125,000; and its broad and well-shaded streets, handsome residences, and pretty gardens are very attractive. It has eighty-four churches and fifty private schools and colleges, besides its numerous and excellent public schools. It has extensive manufacturing interests, including beef packing, beer brewing, leather and flour; and its business edifices are both elegant and imposing. The Mitchell Bank Building and Chamber of Commerce, on Michigan street, East Water street, and Broadway, were constructed at a cost of $700,000. The Library Building, on Grand avenue, between Fourth and Fifth streets, erected by Hon. John Plankinton, contains the public library and a portrait gallery. The County Court House, on Juneau square, is a handsome structure with a fine dome. The building cost $650,000. The Exposition Building occupies the square bounded by State, Cedar, Fifth, and Sixth streets. There are several fine parks within the city.

## From Milwaukee to Kilbourn City.

The next stage of our journey will be over the La Crosse Division of the Chicago, Milwaukee & St. Paul Railway for a distance of 109 miles from Milwaukee to Kilbourn City. Leaving Milwaukee Friday morning and passing out from Milwaukee through its northern suburbs, the railroad crossing the beautiful grounds of the Soldiers' Home, the traveler passes through successively Milwaukee, Waukesha, Jefferson, Dodge, Columbia, and Sauk counties, to the banks of the Wisconsin River. The route traverses the beautiful lake country of Wisconsin, the paradise of the sportsman. At many places the railway runs near the charming little sheets of water, and the scenery is often very picturesque. At Pewaukee, Lake Side, Hartland, Nashotah, Okauchee, Oconomowoc, and a dozen other points are great hotels and boarding-houses, and the whole region is filled with pleasure seekers during the summer. Seven miles from Brookfield are

## The Dells of the Wisconsin.

On the arrival of the train at Kilbourn City, a boat will be in waiting to convey the party on an excursion up the river through the famous Dells of the Wisconsin. The Wisconsin takes its rise in the scores of little lakes in Northern Marathon county, and empties into the Mississippi at Prairie du Chien. At this point, or rather for a considerable distance above and below Kilbourn, the stream has ploughed through rifts of rock, which it has carved into fantastic forms. Before reaching Kilbourn, the cars approach the river-bank, and glimpses are had of "Lone Rock" and the "Inkstand." The river is narrower above the railroad bridge, and is more tortuous; while dells, gulches, glens, and caverns, some with narrow openings and grotesquely formed walls, abound. The cliffs are in places perpendicular, and in others actually overhang. That portion of the dells most frequented commences near the railroad bridge and extends

some four miles up the river to the "Upper Jaws," or Head of the Dells. Among the points of interest to be seen are "Angel Rock," "Swallow Rock," "High Rock," and "Romance Cliff" (forming the Lower Jaws), "Chimney Rock," "Echo Cove," "Chapel Gorge," the old "Dell House," "Gates' Ravine," "Narrow Passage" (where the river is only fifty-two feet wide and ninety feet deep), "Black Hawk's Cave," the "Devil's Elbow," "Notch Rock," "Artist's Glen," the "Piazza," "Cold Water Cañon," the "Devil's Arm Chair," "Ruffle Rock," "Chameleon Cave," "Steamboat Rock," "Rood's Glen," "Arch Cove," and the "Witches' Gulch." There are many quaint rock forms within the gulches, the "Jug," or "*Hexen Kessel*" (Witches' Cauldron), for instance, being at the upper end of "Cold Water Cañon." Farther up the river are "Visor Ledge," "Stand Rock," and other objects. Landings will be made at both "Cold Water Cañon" and "Witches' Gulch." The latter contains the "Phantom Chamber" and some picturesque falls. An enumeration of the objects to be seen in the course of the excursion gives only a feeble idea of the quaint beauty of the dells and of their really wonderful features. Supper will be provided at Kilbourn City on the return of the party, and the passengers will sleep on the cars, which will be attached to a train leaving Kilbourn at 5.31 A. M.

## The Attractions of the Upper Mississippi.

The distance from Kilbourn City to La Crosse is eighty-five miles. The road here traverses the counties of Juneau, Monroe, and La Crosse, and the scenery is in many places very picturesque. La Crosse, a pretty city of about 18,000 inhabitants, will be reached at 8.35 A. M., and breakfast will be served at the Cameron House. The city enjoys considerable river business, as well as a jobbing trade with the valleys of the Black and Chippewa Rivers. The site of the place is said to have been a great ball-

playing ground of the Indians, and the name is the same that was applied by the early French *voyageurs* to the Indian game.

At La Crosse the railroad crosses the Mississippi River and enters the State of Minnesota. For upwards of 100 miles — as far north as Hastings — it follows the west bank of the "Father of Waters," and brings into view much beautiful scenery. The valley is from three to five miles wide, and the river is studded with green islands. The bluffs, in many cases over 600 feet high, assume a bolder aspect as the traveler proceeds northward; and in many cases they rise abruptly from the river's brink, leaving barely a shelf for the railway to rest upon. Queen's Bluff, an eminence in pyramidal form, is on the west side of the river just below Richmond. Trempeleau, a contraction of the name bestowed by the early French *voyageurs*, and meaning literally the mountain which dips in the water, is an island in the river a short distance above Richmond. Cabin Bluff and many other eminences are seen, and near the city of Winona — a place of 14,000 inhabitants on the river shore — are several bold and striking elevations, including Castle Rock and Sugar Loaf. There are, in fact, two mountains of the latter name, or halves of mountains, on opposite sides of the river; and an Indian legend tells us that two deities quarreled over the possession of the mound, which originally stood on the east shore, and that one removed his half across the Mississippi to its present position. It is along the shores of Lake Pepin, however, that the scenery is most picturesque. The river here expands to a width of from three to five miles, and for twenty-five miles from the mouth of the Chippewa River northward, nearly to Red Wing, presents a succession of lovely views. A grand amphitheatre of bluffs seems to enclose the lake, one of the most prominent elevations being known as Maiden Rock. This is situated on the east bank nearly opposite Frontenac, and is the place where Winona, a fair damsel of the Dakota or Sioux tribe, is said to

have destroyed herself on account of disappointed love. Wabasha, which is upon the line of the railway and just south of the mouth of the Chippewa, was, as late as 1830, the dwelling-place of the chief of the Sioux. The waters of Lake Pepin are dotted with rafts, sailboats, and steamers; and on its shores are several towns, including Lake City, Frontenac, Wacouta, and Bay City. Frontenac is a favorite place of summer resort. Near Red Wing is Barn Bluff, a bold eminence in butte form. Red Wing is the chief town of importance after Winona has been passed. At Hastings, a handsome town which lies nearly opposite the mouth of the St. Croix River, the railway recrosses the Mississippi, and for the remainder of the distance to St. Paul, twenty miles, keeps upon the east side. The scenery is here interesting, but far less striking than it is below.

## Minneapolis.

The train will reach Minneapolis at 2.35 P. M., and there will be a transfer by S. B. Mattison's Omnibus and Transfer Line to the West Hotel, corner Hennepin avenue and Fifth street. The West is one of the largest and most elegant hotels in the country, having been recently completed at a cost for building and furnishing of about $2,000,000. It was begun by the late Charles W. West, and its present owner is Colonel John T. West. The house is under the experienced management of Mr. Charles W. Shepherd. The party will remain in Minneapolis until Monday morning. Saturday morning there will be a carriage ride to the Falls of Minnehaha and other points of interest. Returning from the falls by what is known as the "Back Road," the drive will be extended through Tenth and Seventh streets, which are lined with fine residences; thence to the lumber platform and lumber mills; down the canal through the flouring-mill district, and past the Wasburn A mill (the second largest in the world); across the Mississippi on the iron bridge, which affords the best view of the Falls of St. Anthony

and of the great manufacturing establishments grouped in their vicinity; up the East Side through old St. Anthony, and past the largest flour mill in the world — the Pillsbury A; and back over the Suspension Bridge.

Minneapolis is a city of wonderful growth, and naturally surprises the stranger. Although only twenty-six years old, it has a population of over 130,000, and its builders can hardly keep pace with the demands of trade and the calls of new comers for residences. Its streets and avenues are spacious, and in many instances lined with trees; while its business blocks are among the most substantial and elegant in the country. Its immense manufacturing interests are headed by twenty-three flouring mills, with a daily capacity of 29,000 barrels and an export trade of 1,500,000 barrels per annum, and nineteen lumber mills, which cut 300,000,000 feet of lumber each year. A single flouring mill — the Pillsbury A — is capable of turning out over 5,000 barrels of flour a day. Nearly a score of railroads enter the city, and the railroad shops alone employ thousands of men. The Union depot is a new and elegant building, and several fine railroad bridges span the river. The Suspension Bridge, the chief wagon-way, has a span of 675 feet, and its castle-like towers are 111 feet high. It was completed in 1877. There are thirteen grain elevators. The utilized water-power of the Falls of St. Anthony amounts to 130,000 horse-power at low water-mark. The manufacturing interests aggregate $48,000,000, and the sum of $11,474,402 was expended for buildings last year, while the commerce of the city reached an aggregate of $125,000,000. A fine system of parks and boulevards is being developed. The Chamber of Commerce and Board of Trade occupy a splendid building corner of Fourth avenue and Third street. The High School is a fine structure on Fourth avenue south, extending from Eleventh street to Grand street. The Syndicate Block, on Nicollet avenue, is one of the finest business edifices. There are many other notable buildings, including the new Lumber

Exchange, the Tribune Building, the Public Library, Masonic Temple, and the Corn Exchange. A handsome and capacious exposition building has been erected on the east side of the river.

## The Falls of Minnehaha.

The Falls of Minnehaha, which are to be visited in the course of a carriage ride from Minneapolis, are upon a little creek of the same name, and between three and four miles from the city. They are not grand, but very picturesque, and, having been immortalized by Longfellow, will always possess a rare attraction. A sparkling stream flows through the meadows, and leaps over a cliff in a thin curtain sixty feet high, through which the rocks may be seen. The crumbling of the rock behind the falls has left a wide space, and visitors can safely walk in rear of the curtain of water.

## Lake Minnetonka.

Of the 7,000 lakes of greater or less extent to be found within Minnesota's broad area (83,530 square miles), none is more beautiful and attractive than Lake Minnetonka, which is situated about fifteen miles southwest of Minneapolis, and in the same county — Hennepin. Lying just within the boundaries of the "Big Woods," Minnetonka is of irregular shape, covering about 16,000 acres, its borders following more than a score of graceful bays. Great hotels and summer villages have grown up along its shores and on its romantic islands; steamboats ply upon its waters, and several railroad lines lead to the most favored resorts. On Monday we shall make an excursion to and upon the lake, taking a train on the Minneapolis & St. Louis Railway in the morning, and returning through Minneapolis to St. Paul in the afternoon. Proceeding first to Lake Park, a steamer will be taken for an extended water trip. Lunch will be provided at the Lake Park Hotel, on the return of the steamer to that point.

## St. Paul.

The passengers will reach St. Paul about six o'clock P. M., and there will be a transfer by Cook's St. Paul Omnibus and Carriage Line from the Union depot to the Hotel Ryan. This house, one of the most magnificent hotels in the Northwest, was erected by one of the most public-spirited merchants of St. Paul, and is a handsome ornament to a beautiful city. The Ryan will be made the headquarters of the parties until Tuesday afternoon, and Tuesday forenoon there will be a carriage ride, with visits to the best business and residence sections of the city, the Capitol, Summit avenue, the Observatory, Fort Snelling, etc.

St. Paul, like Minneapolis, is a city of recent and very rapid growth, although the oldest-settled portion of that empire of the Northwest, Minnesota. It was long an Indian town, and in 1680 was visited by Father Hennepin. In 1766 Jonathan Carver made a treaty with the Dakotas in Carver's Cave. The first white settlement was founded in 1838, and a Catholic mission was called St. Paul's; hence the name of the city. The town was incorporated in 1849, with a population of 400, and the city in 1854, with 4,500 inhabitants. The St. Paul of to-day is a busy community of over 120,000, and is one of the handsomest as well as one of the busiest cities in America. Its wholesale trade amounts to over $72,000,000 a year. It is the capital of the State and the county seat of Ramsey county. Its situation at the head of navigation on the Mississippi River was at the outset greatly in its favor, and the centering here of the great railway systems of the Northwest has given it still greater importance. The opening of the Northern Pacific Railroad for its entire extent three years since was an important event for St. Paul and for its near neighbor, Minneapolis. The headquarters of this great line are located here, and the Northern Pacific Building is one of the chief ornaments to this handsome city. Several other railway lines have their

headquarters here; and the Union depot, foot of Sibley street, is one of the finest in the country, although much too small to meet increasing demands. The State Capitol is at the intersection of Ninth and Wabasha, the Market House at the corner of Seventh and Wabasha, and the Custom House and Post Office at the corner of Fifth and Wabasha. There are twenty-three schools, including the fine High School, on Tenth street, near the Capitol, and sixty-three churches, several of which are costly and elegant structures. A new County Court House is in process of erection. A stately bridge, built on an incline from the high bluffs of St. Paul, leads to the west side of the Mississippi.

## Fort Snelling.

Fort Snelling, which will be visited in the ride from St. Paul, is delightfully situated upon the high banks of the Mississippi River near the Minnesota River, two miles beyond the Falls of Minnehaha. It is the oldest government post in Minnesota, and for many years occupied an important relationship to the frontier. It was commenced in 1820 by a detachment of the 5th regulars, under Colonel Josiah Snelling, and was first called Fort St. Anthony; but in 1824 General Scott caused its name to be changed. In 1857 the garrison was discontinued, and the fort remained dismantled until 1861. During the late war it was a State military rendezvous.

## Westward on the Northern Pacific Railroad.

Tuesday afternoon there will be an omnibus transfer from the Hotel Ryan to the Union station, in St. Paul, and the parties will depart westward over the Northern Pacific Railroad at 4.00 P. M.

This great transcontinental line has brought within access of the tourist some of the most wonderful regions of the globe, and for its entire distance a country that is

attractive and interesting. It traverses the new empires of the Northwest, — Minnesota and Dakota, — the no less promising Territory of Montana, and then penetrates the picturesque section of the Northern Pacific Coast. Scattered along its line are natural wonders in the way of lakes, rivers, and mountains, to say nothing of that greatest marvel of all, the Yellowstone National Park. Our western course will take us over this great road for upwards of 1,000 miles. During our transit, meals will be served on board the Northern Pacific Railroad dining-cars.

On leaving St. Paul, we cross the Mississippi River to Minneapolis, and then journey up the banks of the great stream, going first northwest and then north, and passing through a rich and fruitful agricultural region. The surface of the country is diversified by lakes, rivers, and forests of hard wood. Before nightfall the train will pass through Anoka, the county seat of Anoka county and a flourishing place of some 6,000 inhabitants; Itaska; Elk River, county seat of Sherburne county; Sauk Rapids, a town of 1,000 inhabitants and county seat of Benton; and several lesser places. Later on, Little Falls, county seat of Morrison; Brainerd, county seat of Crow Wing and the junction with the line leading from Duluth; Verndale; Wadena, county seat of Wadena; Detroit, county seat of Becker; Lake Park; Glyndon, and Moorhead. The flourishing city of Fargo, which confronts Moorhead on the Dakota side of the Red River, and a portion of the great wheat-raising region, will be passed in the night, although enough will be seen in the morning hours to afford an insight into the vast extent of wheat farming in Dakota.

## Dakota and the Bonanza Wheat Farms.

Dakota possesses the imperial domain of 150,932 square miles — a larger area than any of the other Territories or States of the country except Texas and California. It

is about twice as large as all the New England States combined, more than three times the size of New York, nearly four times as large as Ohio, and nearly twice as large as England, Wales, and Scotland together. The population in 1880 was 135,180, and it was estimated to be 450,000 in 1886—270,000 in South Dakota and 180,000 in North Dakota. Northern Dakota, which is supposed to be that portion of the Territory lying between the 46th and the 49th parallels of north latitude, with an area of 75,000 square miles, through the southern section of which the Northern Pacific Railroad extends, possesses the peculiar soil and natural climatic conditions for the production of hard spring wheat, the kind that is consumed in the great roller flouring mills of Minneapolis. It is said that this wheat cannot be raised south of the Northern Pacific grain belt. The average yield of wheat per acre varies from 16 to 25 bushels in the Red River Valley, and from 20 to 30 bushels on the uplands west. From 35 to 40 bushels to the acre, weighing from 61 to 65 pounds to the bushel, is not an unusual yield on the uplands of North Dakota. Seeding begins in March, and August is the harvesting month. Later, after threshing, the whole country is lighted by the burning straw heaps; the farmers vying with each other in making the largest bonfires. The ashes serve to enrich the soil. Prior to 1875 it was declared, upon high army authority, that beyond the Red River the country was not susceptible of cultivation. This sweeping statement gained wide publicity, and caused much hesitation with regard to undertaking the cultivation of the Dakota prairies. Messrs. George W. Cass and Benjamin P. Cheney (the latter of Boston), both heavy capitalists and directors in the railroad company, having faith in the fertility of the land, determined to test its capacity for wheat production. They first bought, near the site of the present town of Casselton, 7,680 acres of land from the railroad company, and then secured the intervening sections of government land with Indian scrip, thus obtaining compact farming grounds

of immense area. Mr. Oliver Dalrymple, an experienced wheat farmer, was engaged to manage the property, and in June, 1875, he began the cultivation of 1,280 acres. This has been extended until 30,000 acres are cultivated practically under one management, the area of the three tracts being 75,000 acres. Farming operations are here conducted on a gigantic scale, and yet with the greatest system. The plan adopted by Mr. Dalrymple is to divide the land into tracts of 6,000 acres each, and these are subdivided into farms of 2,000 acres each. Over each 6,000 acres a superintendent is placed, with a book-keeper, headquarters building, and a storehouse for supplies. Each subdivision of 2,000 acres is under the charge of a foreman, and is provided with a set of buildings, comprising boarding-houses for the hands, stables, a granary, a machinery hall, and a blacksmith's shop, all connected with the superintendent's office by telephone. On a 20,000 acre tract near Casselton, 400 men are employed in harvesting, and 500 to 600 in threshing. There are also brought into requisition 250 pairs of horses or mules, 200 gang plows, 115 self-binding reapers, and 20 steam threshers.

In traversing the great Territory of Dakota, the train passes through many thriving young towns and cities. Bismarck, the Territorial capital, which will be reached Wednesday morning, is an attractive city of about 4,500 inhabitants. It is situated 1,690 feet above the sea, and far enough above the Missouri River to be safe in the time of freshets. The Capitol building has a commanding situation upon a hill, and is a handsome structure. Fort Abraham Lincoln, where the gallant and ill-fated General George A. Custer passed the last two years of his life, is about five miles distant, on the high bluffs west of the river; and its white walls form a prominent object in the outlook. This post was attacked on five different occasions in 1872 and 1873 by the Sioux. Bismarck is an important river port. Not only do steamers reach here from St. Louis, a distance of 2,000 miles, but there are as many miles of navigable waters northward

and westward in the upper Missouri and its tributaries. North of Bismarck are thriving Scandinavian and Russian settlements.

On leaving Bismarck the train crosses the Missouri River on a fine three-pier iron bridge. The construction of this great engineering work involved the control and rectification of the river, which is now confined to a channel 1,000 feet wide, although the stream formerly had a width of 2,800 feet. The main spans of the bridge are 400 feet, and there are two approach spans of 113 feet each. The east approach is two miles in length, and the west approach 6,000 feet. The bridge was opened Oct. 1, 1882, having cost $1,000,000. On the west shore is the railroad city of Mandan, the county seat of Morton county. Up to 1879 Mandan was the home of the warlike Sioux. The Dakota Division of the Northern Pacific ends and the Missouri Division begins here, and at this point the time changes, mountain or 105th meridian time taking the place of central or 90th meridian time.

## Pyramid Park, or the "Bad Lands."

Near the little station of Fryburg, 611 miles west of St. Paul, the train suddenly leaves the rolling prairie and enters a long cut on a down grade, soon emerging upon a region of startling appearance. Here are the famous "Bad Lands," sometimes called Pyramid Park. The mighty forces of water and fire have here wrought strange confusion. Buttes from fifty to 150 feet high are seen, with rounded summits and steep sides, and variegated bands of color. The black and brown stripes are due to veins of impure lignites, from the burning of which are derived the shades of red; while the raw clay varies from a glaring white to a dark gray. The mounds are in every conceivable form, and are composed of different varieties of argillaceous limestone; friable sandstone and lignite lying in successive strata. The coloring is very rich. Some of the

buttes have bases of yellow, intermediate circles of pure white, and tops of deepest red. Others are blue, brown, and gray. Between these curiously shaped elevations are ravines and gulches through which streams meander, and there are occasional park-like tracts that afford nutritious grazing for cattle. The term "Bad Lands," as applied to this region and generally understood, is certainly a misnomer. The old French *voyageurs* described the region as "*mauvaises terres pour traverser*," meaning that it was a difficult country to travel through; and the term has been carelessly translated and shortened into "Bad Lands." At Medora, on the west bank of the Little Missouri River, the Marquis de Mores has established a ranch and extensive abattoirs. Not far beyond this point is a prominent landmark on the left side of the track known as Sentinel Butte.

## Montana.

One mile west of Sentinel Butte the train passes from Dakota into another great Territory, — Montana, — which, with its 143,776 square miles of area, is the next largest to the Territory we have just left. It is traversed by the Northern Pacific Railroad for nearly 800 miles. The mean height of Montana above the ocean level is estimated at 3,900 feet, the greatest elevation among the mountain peaks being about 11,000 feet, and the lowest, on the Missouri River, being about 2,000 feet. The main chain of the Rocky Mountains traverses the western part of the Territory in a course a little west of north, leaving about three fourths of its area on the eastern slope. Montana is well supplied with rivers. Her great water courses are Clark's Fork of the Columbia and the Missouri. The latter has many important tributaries within the Territory, including the Yellowstone, Milk, Musselshell, Marias, Jefferson, Madison, and Gallatin. The Missouri River system drains about 80,000 square miles of the Territory, or about twice

as much as Clark's Fork. There are 1,500 miles of navigable streams within Montana. There are nearly 40,000,000 acres of grazing lands and 16,000,000 acres suitable for farming, in addition to vast mining resources. Next to California, Montana has probably produced more gold than any other State or Territory. The railroad traveler through Montana is likely to declare that the region is practically treeless, and yet the Territory contains no less than 14,000,000 acres of forests, mostly in its western part. Although the fourth largest State or Territorial division of the country, Montana had not risen above the forty-fifth in rank of population at the time of the last national census. The introduction of the railroad has served to bring settlers, however, and the present population is probably 100,000, exclusive of Indians. Of the total area, about two fifths of the whole, or 58,000 square miles, are taken up by five Indian reservations. Nearly 20,000 Indians, or about one in fourteen of the entire Indian population of the United States, reside on the Montana reservations, the Crows, Piegans, Gros Ventre, and Blackfeet tribes being of the number. Before 1861 there were no settlements in the Territory, and it was not until the gold-mining excitement of 1862 that Montana began to attract attention.

## The Yellowstone Valley.

The first place of any importance reached in Montana is Glendive. This is a flourishing town of about 1,200 inhabitants, the county seat of Dawson county, and also an important point on the railway, the Missouri Division ending and the Yellowstone Division beginning here. The Yellowstone is one of the most important tributaries of the Missouri, and we ascend its banks for nearly 400 miles before reaching the Yellowstone National Park. Its waters are clear, and, unlike the Missouri, it has a defined channel, which it preserves in spite of freshets. The valley

s fertile, and many fine streams enter the main stream, especially from the south, the chief of these being the Powder, the Tongue, and the Big Horn. In many places fringes of bluffs and buttes are seen, the latter being of similar fantastic forms to those in the "Bad Lands," farther east. The first exploration of the Yellowstone Valley was made in 1806, when one of the returning parties of the famous Lewis and Clark expedition — the band led by Captain William Clark — descended the valley. In 1853 the government sent out an expedition, under command of the late General Stevens, to explore a northern route for a transcontinental railway; and subsequent to that date many expeditions were sent through this valley. When the actual surveys for the railroad were made, and the work of construction begun, bodies of government troops were constantly engaged in protecting the workers, so tenacious were the aborigines of their fair possessions. Between the years 1873 and 1877, this now peaceful valley was the scene of many stirring events, in which the lamented General Custer, General Crook, General Miles, and other brave officers were concerned. The Sioux and Cheyennes, under Sitting Bull and Crazy Horse, were chiefly the hostiles, and the Indians fought desperately to prevent the whites from obtaining a foothold in this part of the Territory. General Custer and his command were killed on the banks of the Rosebud River June 25, 1876. Later in the same year and during the year 1877, General Nelson A. Miles, then colonel of the Fifth Infantry, who had been stationed at a cantonment at the mouth of the Tongue River, now Fort Keogh, effectually cleared the valley of the hostiles. During the brilliant operations carried on by General Miles in 1876 and 1877, the troops under his command marched 4,000 miles, captured 1,600 horses, ponies, and mules, destroyed a large amount of camp equipage, caused the surrender of numerous bands, and cleared the country of 7,000 Indians. As a result, not less than 400 miles of the Yellowstone Valley were opened

up to settlement. The capture of the Nez Perces under Chief Joseph was one of the latest achievements in this campaign. Sitting Bull took refuge on British soil until the spring of 1883, when he returned to the United States, and was sent to the Standing Rock Indian Agency in Dakota.

Miles City, named in honor of General Miles, is seventy-nine miles west of Glendive. It is a flourishing place, of about 3,000 inhabitants, and the centre of a large cattle trade. A considerable portion of the business section of the place was destroyed by fire about the first of May, 1885. Fort Keogh is two miles beyond. Rosebud, Forsyth (named in honor of General James W. Forsyth), Big Horn, and Custer are stations farther west. At Big Horn the Northern Pacific crosses the river of the same name on a bridge 600 feet in length, and just beyond it pierces an intervening bluff by means of a tunnel 1,100 feet long. Pompey's Pillar, twenty-four miles beyond Custer, is a mass of yellow sandstone about 400 feet high, on the side of which Captain William Clark, the explorer, carved his name July 25, 1806. Until within a few years, the Yellowstone Valley and the neighboring country contained great numbers of buffalo; but the animals have for the most part been slaughtered or driven farther north. The entire southern shore of the Yellowstone, for a distance of some 200 miles beyond Forsyth, and extending back to Wyoming, was set apart by Congress, in 1868, as a reservation for the Crow Indians. This is one of the most fertile and best-watered sections in Montana. Upon this tract, which is nearly as large as the State of Massachusetts, exist about 3,000 Indians. The Crows have long been friendly to the whites. In 1882 they re-ceded to the government a strip of their domain containing the Clark's Fork gold and silver mines. Billings, named in honor of Hon. Frederick Billings, a former president of the Northern Pacific Railroad, is a flourishing town of 2,000 inhabitants, 917 miles from St. Paul and 225 miles from Glendive. It is the centre of considerable trade,

the surrounding country being occupied largely for cattle and for sheep raising, and also the junction point of the Yellowstone and the Montana Divisions of the Northern Pacific Railroad. The place dates back only to the spring of 1882. A handsome brick church edifice has been erected at Mr. Billings's expense.

In passing up the valley west of Billings, the grand bulwarks of the Rocky Mountains begin to be seen. These snowy ranges are lofty, and at first are quite likely to be mistaken for clouds, so soft and ethereal do their white summits appear. The mountain wall extends across the west, and is also seen in the south; and the views increase in beauty and grandeur as we approach the range. Park City is a small but growing place twenty-three miles west of Billings. Eighteen miles east of Livingston and seventy-four miles west of Park City are some hot springs which are known to possess curative properties. Livingston, 1,032 miles from St. Paul, is a lively and enterprising place of about 1,800 inhabitants, although not yet six years old. It is charmingly situated at the base of the Belt Mountains, about midway between the Great Lakes and the Pacific Coast, and is the junction point of the main line of railway and the Rocky Mountain Railroad of Montana, or the Yellowstone National Park Branch, which is owned by the Northern Pacific corporation.

## Through the Upper Yellowstone Valley.

Leaving the main line of the Northern Pacific Railroad at Livingston, which will be reached Thursday morning, we shall turn southward and ascend the Yellowstone Valley fifty-one miles farther, to Cinnabar, which lies only a short distance from the northern border of the National Park. We are now fairly in the mountain region, and the scenery of the upper valley is certainly magnificent, a fitting prelude to the wonders of the park. The railroad crosses the Yellowstone River at Livingston,

where it makes an abrupt turn; and the branch line continues along its west bank. Passing through a narrow defile known as the Lower Cañon, we emerge into a fertile park thirty miles long and a dozen miles wide, through which the river flows. This tract is called Paradise Valley, and contains a number of fine farms, or ranches. One of these ranches is given up chiefly to the raising of fine horses, and contains several thousand noble animals. The river makes many graceful curves and is fringed with trees. Its clear waters abound in trout and grayling, and its surface is the haunt of myriads of water-fowl. The snow mountains border the valley on the south and east, rising 3,000 or 4,000 feet above the valley itself; while the western hills are of lesser elevation, but interesting on account of their evidences of volcanic action. A grand panorama of stately domes is constantly unfolding on the left, with the river and a beautiful intervale for a foreground. Along the valley and high upon its sides are many evidences of ancient glaciers. Dr. Archibald Geikie, the distinguished British geologist, found proofs that at the Second Cañon the Yellowstone glacier was from 800 to 1,000 feet deep. At the upper end of Paradise Valley, the massive form of Emigrant Peak, 11,034 feet in height, becomes a prominent landmark. Above Paradise Valley the river and the railway are crowded into a narrow gorge called the Middle Cañon. The stream here is not more than 100 feet wide. The scenery is wild and desolate. Some seven miles above the Middle Cañon is Cinnabar Mountain, a bold peak which acquired its name, probably, from a broad stripe of vermilion hue that girdles its cliffs. Certain it is that no cinnabar was ever found in the vicinity. On one face of the mountain are two enormous dikes of trap-rock, which have received the designation of the "Devil's Slide." Just south of this mountain, and near the junction of the Gardiner and the Yellowstone Rivers, lies the station of Cinnabar, the terminus of the railroad.

Conveyance is had from Cinnabar to Mammoth Hot Springs, a distance of seven miles, by Wakefield's Stage Line. The stage road formerly crossed a spur of Sepulchre Mountain, but its course has changed for the better. It now follows up the west side of the Gardiner River, gaining, by an easier grade, the plateau on which the Mammoth Hot Springs Hotel is situated, and above which the terraces built by the springs themselves rise. The hotel will be reached at about 1.00 P. M.

## The Yellowstone National Park.

The reservation known as the Yellowstone National Park, set apart for public uses by an act of Congress passed in 1872, covers a tract of about sixty-five miles in length, from north to south, and about fifty-five miles in width, from east to west, lying chiefly in Northwestern Wyoming, and overlapping, to a small extent, the Territorial boundaries of Montana, on the north, and Idaho, on the west. This gives an area of 3,312 square miles, a tract that is nearly the area of the States of Rhode Island and Delaware combined, and nearly half as large as the State of Massachusetts. The name "park" is perhaps misleading, as it is exceedingly diversified, containing numerous parks, or open tracts, as the name "park" has been bestowed in the mountain sections of Colorado, besides high mountains and beautiful lakes. The Rocky Mountain chain crosses the southwestern portion in an irregular line, leaving by far the greater expanse on the eastern side. The least elevation of any of the narrow valleys is 6,000 feet, and some of them are from 1,000 to 2,000 feet higher. The mountain ranges which hem in these valleys are from 10,000 to upwards of 11,000 feet in height, Electric Peak (in the northwest corner of the park, not far back of Mammoth Hot Springs) having an elevation of 11,155 feet, and Mount Langford and Turret Mountain (both in the Yellowstone Range) reaching the height of 11,155 and 11,142

feet respectively. The drainage of the park area is divided among three distinct systems—the Yellowstone River, which has about three fifths and runs in a sinuous course from the southeast to the northwest corner of the park, mainly through deep cañons, and the Madison and Snake Rivers, which have about one fifth each. The Yellowstone and Madison are tributary to the Missouri, and the Snake flows into the Columbia.

John Colter, or Coulter, who was connected with the Lewis and Clark expedition, and went back on his return in 1806 to hunt and trap on the head waters of the Missouri, was probably the first white man who ever saw any of the springs or geysers in this wonderful region. After a narrow escape from the Blackfleet Indians, he lived for a number of years among the Bannocks, who ranged through the country in which the park is located. In 1810 he returned to St. Louis, and told wonderful tales of the region, which were not believed. "Coulter's Hell" was the name afterwards applied to this section by hunters and trappers. In 1844 James Bridger, the famous Rocky Mountain guide and scout, described some of the wonderful springs and geysers, but his stories were not credited. Later Captain John Mullan's report on the construction of a military road from Fort Walla Walla to Fort Benton, Captain W. F. Reynolds's report on the exploration of the Yellowstone River, and a letter of Captain Walter W. A. De Lacey, who in 1863 visited the Lower Geyser Basin, made mention of the geysers. The first extended account of the Yellowstone geysers was published in 1870, based on a visit in 1869 by David E. Folsom. In 1871 Dr. F. V. Hayden made his preliminary survey, the report of which prompted Congress to set aside the tract as a public park. Since that time Dr. Hayden and his assistants have made further surveys of the region, and his twelfth annual report for 1878 (issued in 1883) gives the fullest information about the park yet published.

## The Mammoth Hot Springs.

We shall make two visits to the Mammoth Hot Springs,—before and after the tour of the park,—so that there will be ample time to inspect the wonders of the region. The springs have built up a series of remarkable terraces on the west side of a little plateau, or basin, 1,000 feet above the Gardiner River, into which their waters flow. On the opposite side of the river rises the long, rugged mass of Mount Evarts, which has an elevation of 7,600 feet, or 1,213 feet higher than the plateau. The whole plateau and the steep slopes extending down to the river are mainly composed of calcareous deposits, resulting from springs and geysers now extinct. There are no active geysers at the present time in this basin; but two large cones of extinct geysers stand at no great distance from the hotel, and are almost the first objects to attract attention. These are "Liberty Cap," an isolated shaft forty-five feet in height and twenty feet in diameter at its base, and "Giant's Thumb," or "Liberty Cap No. 2," about one hundred yards distant, and smaller. Both show signs of considerable age, and are gradually crumbling away. All around are a number of shallow basins; and in other parts of the plateau are cavities and caverns, from which hot springs probably flowed at some period more or less remote. The beautiful terraces, now in process of formation just below the active springs, are the most interesting objects to be seen, however. The recent deposits, on which the springs are at present found, occupy about 170 acres. The rocks upon which the deposits are found belong to the Middle and Lower Cretaceous and Jurassic formations. Beneath the Jurassic rocks there are probably carboniferous limestones, from whence come the carbonic acid and carbonates that are found in the water of the springs. The springs at present are found mainly on two masses of deposit, and these are arranged in terraces, of which there may be said to be four principal ones with subdivisions. Dr. A. C. Peale (in Part II. of Hayden's

*Twelfth Annual Report*) enumerates fifty-two different springs in this district, which have a temperature varying from 63 to 165 degrees Fahrenheit. The terraces are a succession of beautiful basins, over the rims of which the water falls in gentle rivulets and miniature cascades. The deposits, which result from evaporation, at the margin of each basin are exquisite in form and color. The rims and walls present the most delicate arabesques, and fretted stalactites depend from the edges. A rounded pulpit, seemingly supported by a series of columns, has been formed in one place. Rich cream and salmon tints predominate, but these deepen into shades of red, brown, green, and yellow; while the turquoise blue of the waters affords a striking contrast of color. The main springs are in a pool, or a succession of three pools, 100 feet wide and 200 feet long. Dr. Hayden, in his *Report* for 1871, thus describes the general view of the springs: "The wonderful transparency of the water surpasses anything of the kind I have ever seen in any other portion of the world. The sky, with the smallest cloud that flits across it, is reflected in its clear depths; and the ultramarine colors, more vivid than the sea, are greatly heightened by the constant, gentle vibrations. One can look down into the clear depths, and see with perfect distinctness the minutest ornament on the inner sides of the basins; and the exquisite beauty of the coloring and the variety of forms baffle any attempt to portray them either with pen or pencil. And then, too, around the borders of these springs, especially those of rather low temperature, and on the sides and bottoms of the numerous little channels of the streams that flow from these springs, there is a striking variety of the most vivid colors. I can only compare them to our most brilliant aniline dyes — various shades of red, from the brightest scarlet to a bright rose tint; also yellow, from deep, bright sulphur, through all the shades to light cream color; there are also various shades of green, from the peculiar vegetation. These springs are also filled with minute

vegetable forms, which, under the microscope, prove to be diatoms, among which Dr. Billings discovers *Palmella* and *Escillara*. There are are also in the little streams that flow from the boiling springs great quantities of a fibrous, silky substance, apparently vegetable, which vibrates at the slightest movement of the water, and has the appearance of the finest quality of cashmere wool. When the waters are still, these silken masses become encrusted with lime, the delicate vegetable threads disappear, and a fibrous, spongy mass remains, like delicate snow-white coral." One of the most beautiful springs of all has been named the "Cleopatra." In the edge of the forest above the plateau, and near the old road up Terrace or White Mountain, is a beautifully tinted mound called the Orange Geyser. The geyser in this instance, however, is only a boiling spring, similar to the misnamed geysers of California. The waters of some of these springs nearest the hotel are utilized for bathing.

There are several hot springs within a few feet of the Gardiner River; and the feat of catching trout in the pure, cold stream, and boiling them in the neighboring spring before they are detached from the hook, may actually be performed. In a depression above the spring formations is a little lake, containing both hot and cold springs. There are several fine falls upon the Gardiner River, the finest being upon the Middle Fork, about four miles distant from the hotel. These falls are 140 feet high, and are in a cañon 1,200 or 1,500 feet deep. Near at hand are Bunsen Peak (8,775 feet) and the bold Sheepeater Cliffs. The latter take their name from a tribe of Indians that is supposed to have once inhabited this part of the park, and to have lived chiefly upon the mountain sheep, which still abound on Mount Evarts and in other secluded places.

## On the Road to the Geysers.

Leaving the hotel at Mammoth Hot Springs Friday morning, the party will proceed to the Lower Geyser Basin, a distance of forty miles. This journey and the subse-

quent trips about the park will be made in comfortable spring-wagons. The road, completed by the government two years since, from the springs up the Gardiner River Cañon, and through the "Golden Gate" to Swan Lake, will be taken; and the steep ascent of Terrace Mountain, which was formerly necessitated, will be avoided. Emerging upon the elevated plateau near the pretty little sheet of water known as Swan Lake, which forms one of the numerous sources of the Gardiner, a fine view is had of the Gallatin Range. These mountains occupy a considerable area in the northwestern section of the park, the prominent peaks being Quadrant Mountain (10,127 feet), Bell's Peak (10,331 feet), and Mount Holmes (10,528 feet). Bunsen Peak, which we have left behind us, and also Electric Peak, Sepulchre Mountain, and Cinnabar Mountain belong to the same range. Near the crossing of the Middle Fork of the Gardiner is an old Indian trail which the Bannocks formerly used. Willow Park is the name given to a little region which has often served as a camping-place, and not far beyond are the famous Obsidan Cliffs and Beaver Lake. There is a ridge 1,000 feet in length, and from 150 to 250 feet in height, rising in almost vertical columns from the eastern shore of the little lake. This mass is composed of volcanic glass; and, when it was found advisable to build a carriage road along its base, the only practicable way of operation was to build huge fires upon the largest masses, and, after they had been expanded by the heat, to dash cold water upon them. This had the effect of fracturing the blocks into fragments, so that they could be removed. Smaller blocks of obsidian are found in other parts of the park. Beaver Lake was formerly the home of a numerous colony of those industrious little animals, and around its wooded shores are numerous hot and cold springs. The road flanks the lake for a mile or so, skirts the alum waters of Green Creek, and then crosses the divide which separates the waters of the Gardiner River, which flow into the Yellowstone, from

those of the Gibbon River, which find their way into the Madison. There are a number of pretty little lakes near the road north of the Norris or Gibbon Geyser Basin.

### The Norris or Gibbon Geyser Basin.

This is the first of the true geyser sections reached in entering the park by this route. The Gibbon River was named by Dr. Hayden in 1872, in honor of General John Gibbon, who had partially explored it; and the discoverer of the Geyser Basin (in 1875) was Mr. P. W. Norris, then superintendent of the park. This basin is the highest in the park, its elevation being 7,257 feet above the ocean level; and it covers an area of about six square miles. There are numerous springs of water and mud, and a few veritable geysers from which water gushes forth. One of these, the "Monarch," is said to eject a column of water to the height of 100 feet. Another, known as "Steamboat Vent," or the "Growler," has broken out within the past few years, while the "Minute Man" has ceased playing altogether. The mud springs and geysers are strange objects. Mud of various tints and states of consistency is thrown out or seen continually seething and bubbling. Dr. Peale enumerates ninety-seven springs of various kinds within this basin. The peculiarities here noticed are the absence of any very great accumulation of deposits, the newness of some of the important geysers, and the abundance of iron and sulphur.

### From the Norris Geyser Basin Northward.

Leaving the Norris Geyser Basin after dinner, we shall continue northward, descending to Elk Park, an elevated meadow about five miles in circumference, and from thence going through the Gibbon Cañon. Not far from the entrance to the cañon, left of the stage road, are the Gibbon "Paint Pots," a collection of remarkable mud

springs of different colors. About a mile distant from the entrance to the cañon is the Monument Geyser Basin, upon the slope of Mount Schurz. The mountain must here be climbed for a mile, to an elevation about 1,000 feet above the road. There are several active mud springs; but the geysers have become inactive, although steam continues to escape from some of their throats. Chimney-like cones have been built up by the old geysers to the height of from six to twenty feet. There are twelve of these strange forms. One resembles a headless man, another a crouching animal, and all stand forth like spectres in this weird scene of desolation. From the summit of one of the cones steam is sent forth with a whistling sound.

Some four miles south of the trail leading to the Monument Geyser Basin and five miles from the Forks of the Firehole are the Falls of the Gibbon. They are in a deep cañon west of the road, the abrupt descent of the stream being sixty feet, and are reached by a steep and difficult trail. When the brink of the falls is once gained, the view is very fine. The river is here 1,000 feet below the carriage road, and the roar of the cataract is heard a long distance.

## The Lower Geyser Basin.

The hotel in the Lower Geyser Basin (or at the Forks of the Firehole, as the region is also designated) will be reached at a seasonable afternoon hour. This basin is a wide valley, with an area of between thirty and forty square miles, having an average elevation of 7,236 feet, or about 150 less than the Upper Geyser Basin, from seven to eight miles distant. Above this the surrounding plateau rises from 400 to 800 feet, the slopes being heavily timbered. In this section Dr. Hayden's party found 693 springs, including the Egeria Springs of the Midway Basin, among which the "Excelsior" Geyser and "Prismatic" Spring are counted. Much of the lower section of the basin

consists of marsh and meadow, and the exploration of the springs is not always carried on with dry feet. The "Thud" Geysers are south of the hotel, along the edge of the timber. The "Great Fountain," which ejects a stream of water to the height of from fifty to 100 feet, is the most important geyser in this vicinity, with the exception of the "Excelsior," already mentioned. It is in action once or twice daily. The "Jet," "Bead," "Pink Cone," "Steady," "Young Hopeful," "Gray Bulger," "Fortress," "Mound," and "Rosette" are the names of some of the others. There are also mud cauldrons, puffs, and springs; and about three miles west of the hotel are the "Twin Domes" and "Queen's Laundry"—three springs of great beauty. Farther on are the Fairy Falls, 250 feet high. Dr. Peale enumerates eight different groups of springs in the Lower Geyser Basin, in addition to those of the Egeria group, in the Midway Basin. One of the greatest wonders of this region is known as the "Paint Pots." In a crater forty feet or more in diameter, there are numerous mud springs, in which the material cast forth has the appearance of paint of different colors. The pasty material is exceedingly fine to the touch, and, as it bubbles up, generally assumes for a moment some floral form. The "Paint Pots" are near the "Fountain" Geyser.

### "Excelsior" Geyser and the "Grand Prismatic" Spring.

Leaving the hotel in the Lower Geyser Basin Saturday morning, the parties will proceed to the Upper Geyser Basin, visiting the "Paint Pots" and the "Fountain" Geyser on the way. A halt will also be made in the Midway Geyser Basin for the purpose of inspecting the great "Excelsior" Geyser and "Prismatic" Spring, both of which lie on the west bank of the river and may be approached by a foot bridge. The "Excelsior" is the largest geyser known in the world, but its eruptions are so irregular

that few have been witnessed in late years. The name of "Cliff Cauldron" was given to it by the Hayden Survey in 1871, and it was not until some years later that it was discovered to be a powerful geyser. In 1881 a series of great eruptions took place, in which a great column of water was ejected to the height of 250 and even 300 feet. At times stones were thrown out. The crater is an immense pit 330 feet in length and 200 feet in width at the widest part, the cliff-like and treacherous walls being from fifteen to twenty feet high from the boiling waters to the surrounding level. The water is always in violent agitation, and dense clouds of steam generally obscure the surface. "Hell's Half Acre" is another expressive name given to this frightful pit. Two rivulets pour forth from this terrible cauldron, and the deposits are very brilliantly colored; yellow, orange, red, and rose tints being displayed in profusion. Near this pit is the "Grand Prismatic" Spring, the handsomest of all the park springs. It measures 350 by 250 feet, and its name was given by Dr. Hayden's party in 1871. Over the central pit or bowl, which is constantly boiling and sending up vast columns of steam, the color is a deep blue, which fades into green toward the edge. The surrounding, shallower basin has a yellower tint, fading into orange; and outside the rim is a brilliant red formation. This fades into purples, browns, and grays, the whole being on the gray-white ground of the deposit. There are several other remarkably beautiful springs in the vicinity, including the "Turquoise," a deep, blue-tinted square spring, at a lower level than the "Prismatic."

Between five and six miles above the "Excelsior" Geyser we come to the Upper Geyser Basin.

## The Upper Geyser Basin and its Wonders.

In a nearly level tract inclosed by low hills, with the Firehole River flowing through it and mainly upon the east side, are found the chief geysers of this marvelous region.

The basin has an area of about four square miles and a general elevation of 7,372 feet. Dr. A. C. Peale (in Hayden's *Report*) enumerates 440 springs and geysers within this territory, including twenty-six distinct geysers. There had been discovered within the park previous to 1878, according to the same authority, 2,195 springs and geysers, including seventy-one active geysers. These figures resulted from only a partial survey of the region. The Upper Basin group includes, with others, the following: "Old Faithful," "Castle," "Bee Hive," "Giant," "Giantess," "Grotto," "Grand," "Oblong," "Splendid," "Comet," "Fan," "Riverside," "Young Faithful," "Turban," "Saw Mill," "Lion," and "Lioness." These are scattered over the surface of the basin, chiefly along the river-bank, "Old Faithful" being at the southern extremity, and the "Fan" and "Riverside" at the northern end, near where the wagon road enters the basin. The "Grotto," "Giant," "Oblong," and "Castle" are near the road. The "Bee Hive," with its handsome cone, from which the geyser takes its name, together with the "Giantess" and "Lion" group, is upon the opposite side of the river from the hotel. Many beautiful springs are in proximity to the geysers, forming objects of interest second only to the mammoth fountains of hot water. The springs have generally great depth and clearness, and the beholder can examine minutely the delicate formations far beneath the surface. The edges are in many cases scalloped and variously tinted, causing the deep blue spring and its exquisitely colored border to resemble a mammoth flower. One spring bears the appropriate name of the "Morning Glory." Another very beautiful spring is situated quite near the "Castle" Geyser. There is no time when the subterranean forces are inactive, and the Upper Geyser Basin at all times presents a strange and weird scene. Strange sights and sounds greet the visitor on every side. Clouds of steam arise from a dozen different localities, some of the springs being hidden in the timber which covers

the neighboring mountain-sides. In the vicinity of the geysers, there are hissing, gurgling, and thunderous thuds, as if the imps of the infernal regions had heavy contracts of labor to perform. The eruption of any of the great geysers is heralded by the escape of steam from an adjacent steam-vent; and directly after a fountain of hot water is thrown into the air with fearful belchings, to fall again in a giant cataract. Almost constantly there is a display of some kind going on, and the strange din is kept up night and day. There are daily eruptions of some of the geysers, while others have longer intervals of quiescence. As our stay in the Upper Geyser Basin will continue from Wednesday forenoon until Friday morning, there will, without doubt, be opportunities to witness several of the great geysers in action.

"Old Faithful" is the most famous of all the Yellowstone Park geysers, the frequency and regularity of its eruptions having afforded opportunities for careful observation and record. It is situated on a little mound of geyserite about a dozen feet high and about 700 feet from the river. The chimney, or crater, has an oblong opening, measuring two by six feet inside. This slopes inward, and is the top of a basin about five feet deep, at the bottom of which is an irregular orifice, the head of the geyser tube. The inside of the basin is of a dark yellow or rusty color. The eruptions of "Old Faithful" occur at intervals of from fifty-two to eighty minutes, and last from three to five minutes, a column of water being thrown to the height of from 100 to 150 feet. Dr. Peale's measurements give an elevation of 135 feet. The eruption begins with some preliminary splashes, or spurts, from three to a dozen or more in number. These continue about four minutes, becoming more and more powerful, when they are followed by a rapid succession of jets, which escape with a roar, and soon attain the maximum height. A column of steam ascends three or four times the height of the stream of water. The geyser received its name from Mr. N. P. Langford in 1870.

The "Bee Hive" was also named, like most of the other geysers, by the Washburn exploring party in 1870. It stands about 100 feet from the river. The cone is three feet in height, almost circular, and has a circumference of twenty feet at the base. The top measures three by four feet, and the opening is two by three feet. The cone is beautifully coated with beaded silica, in places of pearly aspect. There is no surrounding terraced deposit, for the reason that little water falls upon the ground in the vicinity. A line dropped into the tube reaches a depth of twenty-one feet, which only marks the straight course of the throat of the geyser. Just outside the cone are several vents, or steam-holes, one of which acts as a sort of preliminary vent, or signal, for the eruption of the geyser. The eruption of the "Bee Hive," which occurs at irregular intervals, generally once a day, is a magnificent spectacle. The water and steam escape in a steady stream for from two to five minutes, and the column of water reaches a height of from 170 to 219 feet. The force is very great, and the ground is shaken during the action of the geyser.

The "Giantess" is situated about 400 feet back of the "Bee Hive," and is the largest geyser in the Upper Basin. Its intervals of eruption are about fourteen days, and an immense column of water is projected to a height of between 100 and 200 feet. The crater, or basin, which is usually filled with boiling water, is irregular in shape, thirty-four feet in its greatest length, and twenty-four feet in its widest portion, and it has been measured with a line to the depth of sixty-three feet. Up to 1878 only four eruptions of this geyser had been witnessed.

Not far from the "Bee Hive" and "Giantess" are a group of small geysers called the "Lion," "Lioness," and "Two Cubs." These names were given on account of the fancied similarity of the cones to animal forms. Professor Comstock named the same group the "Trinity," and Dr. Peale named the principal one "Niobe." The

height of the stream is about seventy-five feet in the largest geyser of the group, and sixty feet in the second largest.

The "Castle" Geyser has the most imposing crater in the Upper Basin, and was so named by Langford and Doane in 1870, on account of its fancied resemblance to the ruins of a feudal castle. It is on the summit of a mound of white and gray deposit that covers about three and a half acres. On this mound, 400 feet from the river, is a sort of platform composed of laminated geyserite 100 feet long, seventy-five feet wide, and three feet high, from which rises the castellated turret, or cone. This is nearly twelve feet high, with an irregular contour, the circumference at the base being about 120 feet, and at the top about sixty feet. The orifice of the geyser tube is three feet in diameter, nearly circular, and is lined with large beaded globular masses of a dull orange color. Steam is almost constantly escaping, and jets of water occasionally spurt above the cone; but the grand eruptions are said to occur at intervals of about forty-eight hours. The height of the stream, as recorded by observers in late years, varies from thirty to 100 feet; but the Earl of Dunraven, who witnessed an eruption in August, 1874, records that the water reached an elevation of 250 feet. He considers it the grandest geyser in the region. One hundred and fifty feet north of the "Castle" is the beautiful "Blue-Crested Spring." The basin of the spring is a trifle over nineteen feet in diameter, and it is bordered by a scalloped rim six inches in height, adorned with pearl-like nodules. Its depth is forty-four feet, and the water is transparent and ethereally blue.

Nearly opposite the "Castle," on the east side of the river, are the "Grand" (so named by Dr. Peale in 1871) and the "Turban." Around the mouths of both these geysers, and especially the latter, are large cushion-like masses of geyserite. The basin is fifty-two feet in diameter and slightly depressed, and the orifice of the "Grand" is

two by four feet. The intervals between the eruptions are from seventeen to thirty-one hours, and the water ascends with a mighty rush to a height of from 150 to 200 feet. There are several connected periods of action, lasting altogether half an hour or more, the closing period generally being the most powerful. The eruption is preceded by a tremendous rumbling, and the ground is shaken during the discharge. The "Turban" is sometimes in action at the same time the "Grand" is at work, and, as it is situated a little higher, the waters overflow into the "Grand." An eruption of the latter geyser is one of the finest spectacles to be witnessed within the park.

The "Giant" is upon the left or west bank of the Firehole, and near the roadway. Its cone resembles a huge stump with one side broken out, the fracture having resulted from some especially powerful eruption. It is ten feet high, and the orifice is about five feet in diameter. The intervals between its eruptions were formerly about four days, and the great fountain played sometimes for three hours or more, to a height of from 130 to 250 feet. Its last eruption took place in March, 1886. There are several small geysers in the vicinity, including "Young Faithful."

Near at hand, too, is the "Oblong" Geyser, which was thought by the early explorers to be merely a hot boiling spring. Here an oblong pool, fifty feet in length by thirty-one in width at one extremity and twenty-one feet at the other, is tossed bodily into the air in a splashing mass, to an elevation of thirty or forty feet. The eruptions are said to take place once or twice daily.

Not far below the "Giant" and "Oblong" is the famous "Grotto," one of the most interesting of all the geysers. The double cone is eight feet high, fifty-three feet long, and twenty-six feet wide, and is hollowed into fantastic arches, beneath which are grotto-like cavities that act as lateral orifices during an eruption. There are two vertical orifices — one two by six feet, and the other three by five feet. The eruptions

consist of two well-defined columns alternating with each other, the arches serving to break the water into sprays. Near one of the openings a pillar-like mass of geyserite rises to a height of about six feet. The "Grotto" is in action several times a day.

The "Splendid" and "Comet" are two geysers situated in the "White Pyramid" group, west of the "Giant." Both play together, the column of the former reaching an altitude of about 150 feet, and the latter spurting obliquely into the other. The eruptions take place about every three hours, and last from four to ten minutes. The "White Pyramid" is an old geyser cone; not far from it is a boiling spring known as the "Devil's Punch Bowl," and west of the latter lies "Specimen Lake."

The "Fan" and "Riverside" are on the west bank of the river, near the bridge. Both play three times daily. The "Fan" has an orifice which discharges two radiating jets about sixty feet.

## The Theory of Geyser Action.

Herschell, Bunsen, Comstock, McKenzie, and other scientists have advanced theories as to geyser action, and that of Bunsen is generally accepted in the main. The presence of igneous rocks which still retain their heat at a considerable distance below the surface, and the admission of water to subterranean apertures, or tubes, seem to be the requisite conditions to produce a geyser. This word, by the by, is derived from the Icelandic word *geysa* — to gush. Steam is formed within caverns or chambers partly filled with water; and a column of water, as well as the steam itself, is driven out through the tube. Intermittent geyser action may result from curvatures in the tube, deposits of water being left in the depressions from previous upheavals, to await the next discharge, the intervals between the eruptions being governed by the size of the chambers wherein the steam is generated, conditions of temperature, etc. It has been

noticed that geysers occur where the intensity of volcanic action is decreasing. In the neighborhood of active volcanoes, such as Vesuvius, the temperature appears to be too high, and the vapor escapes as steam from what are called *stufas*. When the rocks are more cooled, the water comes forth in a liquid form. Says Dr. Peale in *Science* (July 27, 1883): "It is probable that all geysers are originally due to a violent outbreak of steam and water, and that the first stage is that of a huge steam-vent. Under such conditions, irregular cavities and passages are more likely to be formed than regular tubes. The lining of the passages and tubes takes place afterward, and is a slow process. Whether the subterranean passages in which the water is heated are narrow channels, enlargements of tubes, or caverns and tubes, is probably of little consequence, except as the periods or intervals of the geyser are influenced. If water in a glass tube be heated rapidly from the bottom, it will be violently expelled from the tube; or, if boiled in a kettle that has a lid and a spout, either the lid will be blown off or the water will be forced out of the spout. In the first case we have an explanation, in part at least, of Bunsen's theory; and the second exemplifies the theories which presuppose the existence of subterranean cavities and connected tubes. The simpler the form of the geyser tube, the less is the impediment to the circulation of the superheated water; and in this fact lies the explanation of the difference between constantly boiling springs and geysers. The variations and modifications of the subterranean water passages, however, must be important factors entering into any complete explanation of geyseric action."

## From the Geyser Basins to the Grand Cañon of the Yellowstone.

We shall remain at the Upper Geyser Basin from Saturday forenoon until Monday morning. We shall then start upon our journey to the Falls and Grand Cañon of the

Yellowstone. Proceeding to the Lower Geyser Basin by the direct route, we retrace our way from thence to the Norris Geyser Basin, and from that point take the new road across to the falls and cañon. The route leads directly by the beautiful Virginia Falls, which are situated upon one of the branches of the Gibbon. In the farther ride some fine views are obtained of Mount Washburn and Dunraven Peak, and also of some of the mountains in the southeastern part of the park. The party will reach the Grand Cañon Hotel at a seasonable afternoon hour.

## The Yellowstone Falls.

The hotel is situated quite near the Upper Fall of the Yellowstone. For miles above this fall the river flows in a strong and steady current between low and grass-covered banks. A few hundred yards above the first cataract three isolated and water-worn rocks tower above the waters like the piers of some ancient bridge. At the head of the fall the river has a width of about eighty feet, and the waters plunge over a shelf, between walls that are from 200 to 300 feet in height, upon a partially submerged reef 112 feet below. Dense clouds of spray and mist veil fully one third of the cataract from view.

Half a mile below this fall is the Lower or Great Fall, which is grander and more impressive than the other, though not more picturesque. Here the waters pour into the fearful abyss of the Grand Cañon, the sheer descent being 300 feet. The wooded slopes of the gorge tower far above the flood, and one has to descend a steep incline to reach a platform which serves as a good view point at the verge of the fall. The best views, however, are had from below, where many jutting points afford an outlook upon the wonderful cañon. Clouds of mist ascend from the foot of the falls, and the walls are covered with a rank growth of mosses and *algæ*.

Midway between the two falls the trail crosses Cascade Creek, which flows down to the Yellowstone from the slopes of Mount Washburn. There are here three beautiful little falls known as the Crystal Cascades, 129 feet in height; and directly beneath the bridge and accessible by ladders is the "Grotto Pool."

## The Grand Cañon of the Yellowstone.

Of the purely topographical features of the Grand Cañon of the Yellowstone, Mr. Henry Gannett (in Hayden's *Twelfth Annual Report*) says: "Commencing at the falls, it extends down nearly to the mouth of the East Fork, a distance, as the river flows, of twenty-four miles. Indeed, from the falls to the mouth of Gardiner's River, the Yellowstone is in a continuous cañon; but the partial break at the mouth of the East Fork separates it into two parts, known as the Grand and the Third Cañons. The former occupies the line of greatest depression in a volcanic plateau, which slopes to the northward and southward from the Washburn group of mountains, and to the westward from the Amethyst Ridge of the Yellowstone Range. Its course is northeast as far as the extremity of the Washburn group; and after passing that it turns north, with a very slight inclination west. The height of the plateau at the falls is about 7,800 feet. It increases slightly northeastward, until, in passing the mountains, it has an elevation of about 8,000 feet. Thence northward it decreases in height rapidly, and at the mouth of Tower Creek it reaches but 7,200 feet. At the head of the Upper Fall the river level is but a few feet below the top of the plateau. This fall adds 112, and the Lower Fall 300, feet to the depth of the chasm. From the foot of this fall to the mouth of East Fork the total descent is 1,304 feet in a distance of twenty-four miles, being an average of 54.3 per mile. As far as the extremity of the Washburn Mountains, a distance of twelve miles, the cañon continues to increase in

depth, both by the fall of the stream and the rise of the plateau; and the extreme depth, 1,200 feet, is attained at this point. Thence the depth decreases rapidly, and at the mouth of Tower Creek it is but 500 or 600 feet deep on the west side, and about 1,000 feet on the east side. The width of the cañon at the top varies from one fourth of a mile to one mile; and the angle of slope of the walls from the top to the water's edge ranges from 45 degrees to 75 degrees, with a horizontal line."

These are the cold topographical facts and figures regarding this greatest of all the park marvels, and they are quickly forgotten when the beholder gazes down into the gigantic rift. Neither pen nor pencil can do justice to its stupendous grandeur or its marvelous coloring, wherein it differs essentially from any similar scenic feature of the world's diversified surface. The mountainous region of Colorado has deeper cañons, while the Grand Cañon of the Colorado River, in Northern Arizona, has twice and thrice its depth; but they cannot be compared in impressive beauty with the marvelously pictured rift through which the Yellowstone winds its way after its last grand leap. A narrow trail runs along the western edge, and there are many jutting points from which new vistas are opened through this enchanted land. The walls are in places perpendicular, though generally sloping; while at the bottom is the fretted and fuming river, a ribbon of silvery whiteness or deep emerald green. Along the bottom of the cañon are domes and spires of colored rock, some of them hundreds of feet in height, yet reduced to much smaller proportions by the distance. On the apex of one of these pillars is an eagle's nest. In one place, near the top, a great rock spire, twice as high as Trinity steeple, has split away from the mass of rock behind it, and seems to be ready to topple over into the abyss at any moment, so insecurely is it poised on the shallow shelf beneath. But the gorgeous coloring of the cañon walls is its distinguishing feature. The beholder is no longer left in doubt as to the reason for

bestowing the name of Yellowstone upon this remarkable river. The beautifully saffron-tinted walls give the explanation. There are other tints in opulence. Crimsons and greens are seen with all their gradations and blendings. Emerald mosses and foliage form the settings for dashes of bright rainbow colors. The yellows, due to sulphur deposits, predominate; but the oxidation of iron through the many hot springs, which send up their clouds of steam even here, provides a liberal sprinkling of reds. It seems as if a gorgeous sunset or a shattered rainbow had fallen into the abyss. With the grand grouping of crags and pinnacles, tinted walls, and the beautiful falls, the picture is one that once seen can never be forgotten. Says the Rev. Almon Gunnison (in *Rambles Overland*): "Language is but a clumsy thing with which to paint the glories of this wonder-place. The richest pigments of artists of largest fame have failed; and while men have smiled at the flaming canvas, and said, 'It is impossible,' the baffled painter has grieved that his poor brush had failed to tell half the story of this exceeding loveliness."

Dr. Hayden says in one of his reports: "No language can do justice to the wonderful grandeur and beauty of the cañon below the lower falls, the very nearly vertical walls slightly sloping down to the water's edge on either side, so that from the summit the river appears like a thread of silver foaming over its rocky bottom; the variegated colors of the sides — yellow, red, brown, white — all intermixed and shading into each other; the Gothic columns of every form standing out from the sides of the walls with greater variety and more striking colors than ever adorned a work of human art. The margins of the cañon on either side are beautifully fringed with pines. * * * The decomposition and the colors of the rocks must have been due largely to hot water from the springs, which has precolated all through, giving to them their present variegated and unique appearance. Standing near the margin of the lower falls and look-

ing down the cañon, — which appears like an immense chasm or cleft in the basalt, with its sides 1,500 to 1,800 feet high, and decorated with the most brilliant colors that the human eye ever saw, with the rocks weathered into an almost unlimited variety of forms, with here and there a pine sending its roots into the clefts on the sides, as if struggling with a sort of uncertain success to maintain an existence, — the whole presents a picture that it would be difficult to surpass in nature. Mr. Thomas Moran, a celebrated artist and noted for his skill as a colorist, exclaimed, with a kind of regretful enthusiasm, that these beautiful tints were beyond the reach of human art. It is not the depth alone that gives such an impression of grandeur to the mind, but it is also the picturesque forms and coloring. * * * It is a sight far more beautiful than, though not so grand or impressive as, that of Niagara Falls."

## At the Mammoth Hot Springs Again.

Tuesday will be passed at the Grand Cañon, and Wednesday will be devoted in part to the journey back to Mammoth Hot Springs. The route is *via* the Norris Geyser Basin, where dinner will be provided. The hotel at Mammoth Hot Springs will be reached by 5.30 P. M., and there will be a sojourn there until noon of the following day.

## Over the Northern Pacific Railroad Eastward.

Leaving the hotel at Mammoth Hot Springs Thursday noon by stage, we shall proceed to Cinnabar, where our special Pullman cars will be in waiting for the return journey over the Northern Pacific Railroad eastward to St. Paul. Leaving Cinnabar at 3.45 P. M., the train will descend the Yellowstone Valley to Livingston.

As far as Livingston the route is the same for all three parties. The first and second

parties return eastward, leaving Livingston early in the mornings of Friday, August 10, and Friday, September 7. The third goes westward, leaving Livingston early Friday morning, September 28, continuing its journey across the continent, and arriving at Tacoma Saturday, September 29. The route to Minneapolis and St. Paul will be the same one taken in the outward journey, and Tuesday will be passed upon the road through Montana and Dakota. The train will reach the Union depot, St. Paul, at 5.15 Saturday afternoon. Meals will be served during this journey in one of the elegant dining-cars of the Northern Pacific Railroad. A considerable portion of the route that was passed over in the night on the west-bound trip will be seen by daylight on the return, including a large part of the wheat country, the lake region, and the upper Mississippi Valley, in Minnesota. The famous "Bad Lands" of Dakota will also again be seen by daylight.

## Another Brief Visit to St. Paul.

The return parties will reach St. Paul late in the afternoons of Saturday, August 11, and Saturday, September 8. There will be a transfer to the Hotel Ryan, where Sunday will be passed. Monday forenoon will also be spent in St. Paul, the hour of departure being 2.00 P. M.

## From St. Paul to Chicago.

Taking a train on the Chicago, Milwaukee & St. Paul Railway, at the Union station, at 2.00 P. M., the parties will proceed to Chicago, passing over the charming River Division of the road (from St. Paul to La Crosse) for the second time by daylight. Chicago will be reached at 7.00 A. M. Tuesday, and there will be a transfer by Parmelee's omnibuses from the Union station (on Canal street, between West Madison and West Adams streets) to the Sherman House, where breakfast and dinner will be provided.

## From Chicago Eastward.

There will be an omnibus transfer from the Sherman House to the new Dearborn station, between Polk and Taylor streets and Third and Fourth avenues, and the route eastward from Chicago will be over the Chicago & Grand Trunk Railway and its Grand Trunk connection from Port Huron. The train will leave the Dearborn station at 3.25 P. M., and proceed eastward *via* Valparaiso and South Bend, Ind., Battle Creek, Lansing, and Flint, Mich., etc. Supper will be provided on a Chicago & Grand Trunk dining-car.

Persons returning from Chicago independently will be required to exchange their east-bound sleeping-car coupons either at the city office of the Chicago & Grand Trunk Railroad, 103 South Clark street, Chicago, E. H. Hughes, agent, to whom any application in advance for sleeping-car berths can be addressed; or at the Dearborn station. In order to avail themselves of the stop at Niagara Falls, passengers should leave Chicago by the "Limited Express" at 3.25 P. M. Niagara Falls is the only point east of Chicago where "stop-over" privileges can be allowed.

## Niagara Falls.

The train will arrive at Niagara Falls at 8.53 (Eastern standard time) Friday morning, and there will be an omnibus transfer from the station to the International Hotel or Cataract House, where breakfast and dinner will be had. The forenoon can be spent in an inspection of the great cataract and the other attractions of the place, the time being ample for a round of all the chief points of interest. The hotels are in proximity to Prospect Park, the rapids, the entrance to Goat Island, and the new Suspension Bridge that leads across to the Canada shore just below the falls. After dinner there will be an omnibus transfer to the New York Central station, from

whence the train will depart eastward at 2.16 P. M. Boston will be reached the succeeding morning at 9.35 o'clock, the train arriving at the Fitchburg station, Causeway street, over the West Shore and the Fitchburg roads.

## Price of Tickets.

The price of tickets for the excursion described in the foregoing pages is TWO HUNDRED AND SEVENTY-FIVE DOLLARS. This sum covers all needed expenses of the entire round trip from Boston back to Boston, inclusive of the following items: All transportation by rail, steamer, and stage lines; a double berth (one-half section) in the Wagner or Pullman palace sleeping-cars through the entire journey wherever the same are used (the only exceptions being between Chicago and Milwaukee on the outward journey, where drawing-room chair cars will be brought into requisition, and in the short side trip from Minneapolis to Lake Minnetonka and return to St. Paul); all wagon transportation within the park in accordance with the itinerary; hotel accommodations in Chicago, Milwaukee, Minneapolis, St. Paul, Mammoth Hot Springs, Norris Geyser Basin, Lower Geyser Basin, Upper Geyser Basin, Grand Cañon of the Yellowstone, etc.; incidental meals at hotels, dining-stations, stage stations, and in dining-cars; omnibus and carriage transfers at Chicago, Milwaukee, Minneapolis, St. Paul, and Niagara Falls; carriage rides at Milwaukee, St. Paul, and Minneapolis; steamboat excursions at the Dells of the Wisconsin and on Lake Minnetonka; transportation and care of all checked baggage; and the services of conductors and guides.

## ITINERARY.

MONDAY, July 23. Excursion No. 1.
MONDAY, Aug. 20. Excursion No. 2.
MONDAY, Sept. 10. Excursion No 3.

*First Day.*—Leave Boston at 3.00 P. M. from the station of the Fitchburg Railroad, Causeway street, *via* the Hoosac Tunnel Line in cars of the Wagner Sleeping-Car

Company. On arriving at the station members of the party should check their baggage to Chicago. The checks will be taken up on the train, and the baggage will be delivered at the rooms of the owners in the hotel. Tags are supplied with the excursion tickets, and these, with the owner's name and home address plainly inscribed thereon, should be attached to every trunk, valise, or other piece of baggage, to serve as a ready means of identification. Arrive at Athol, Mass., 5.32 P. M.; supper at the station dining-rooms, W. E. Wood, proprietor; from Rotterdam Junction westward on West Shore Railroad.

TUESDAY, July 24. Excursion No. 1.
TUESDAY, Aug. 21. Excursion No. 2.
TUESDAY, Sept. 11. Excursion No. 3.

*Second Day.*—Arrive at Suspension Bridge 7.25 A. M., and thence westward *via* Great Western Division of Grand Trunk Railway; breakfast at Grand Trunk Railway station dining-rooms; dinner at station dining-rooms, London, Ont., W. J. Fowler, proprietor; from Fort Gratiot, Port Huron, Mich., westward on Chicago & Grand Trunk Railway; supper on Chicago & Grand Trunk dining-car.

WEDNESDAY, July 25. Excursion No. 1.
WEDNESDAY, Aug. 22. Excursion No. 2.
WEDNESDAY, Sept. 12. Excursion No. 3.

*Third Day.*—Breakfast on Chicago & Grand Trunk dining-car; arrive in Chicago 8.10 A. M.; transfer by Parmelee's Omnibus Line from the Dearborn station to the Sherman House, J. Irving Pearce, proprietor.

THURSDAY, July 26. Excursion No. 1.
THURSDAY, Aug. 23. Excursion No. 2.
THURSDAY, Sept. 13. Excursion No. 3.

*Fourth Day.*—Omnibus transfer from the Sherman House to the Union station (Canal street, between Madison and Adams streets), and at 8.00 A. M. leave Chicago in Pullman palace drawing-room cars *via* Chicago, Milwaukee & St. Paul Railway; arrive at Milwaukee 11.00 A. M.; transfer by Davis's Omnibus Line from the Union station to the Plankinton House, C. W. White, manager; during the afternoon carriage ride about the city, visiting the finest business and residence sections, the parks, the bluffs on the lake shore, Forest Home Cemetery, etc.

FRIDAY, July 27. Excursion No. 1.
FRIDAY, Aug. 24. Excursion No. 2.
FRIDAY, Sept. 14. Excursion No. 3.

*Fifth Day.*—Transfer by Davis's Omnibus Line from the Plankinton House to the Union station in the morning, and leave Milwaukee on the La Crosse Division of the Chicago, Milwaukee & St. Paul Railway in Pullman palace sleeping-cars; arrive at Kilbourn City early in the afternoon, and devote the remainder of the day to a steamboat excursion, in the course of

which the most picturesque points in the beautiful Dells of the Wisconsin will be visited; dinner and supper at Kilbourn City; remain on the cars during the night.

SATURDAY, July 28. Excursion No. 1.
SATURDAY, Aug. 25. Excursion No. 2.
SATURDAY, Sept. 15. Excursion No. 3.

*Sixth Day.*— Leave Kilbourn City, *via* Chicago, Milwaukee & St. Paul Railway, at 5.31 A. M.; arrive at La Crosse 8.35 A. M.; breakfast at the Cameron House, Messrs. Fox & Smith, proprietors; leave La Crosse on daylight trip over the River Division of the same railway, in view of the bluffs of the Mississippi, Lake Pepin, and other fine scenery of the upper river; dinner on dining-car; arrive at Minneapolis 2.35 P. M.; transfer by Matteson's Omnibus Line from the Chicago, Milwaukee & St. Paul Railway station to the West Hotel, John T. West, proprietor, and Charles W. Shepherd, manager; during the afternoon carriage ride, with visits to Minnehaha Falls, the finest business sections of the city, the lumber platform and saw-mills, the great flouring mills (the largest in the world), the bridge below St. Anthony's Falls, the new Exposition Building, the Suspension Bridge, etc.

SUNDAY, July 29. Excursion No. 1.
SUNDAY, Aug. 26. Excursion No. 2.
SUNDAY, Sept. 16. Excursion No. 3.

*Seventh Day.*— In Minneapolis.

MONDAY, July 30. Excursion No. 1.
MONDAY, Aug. 27. Excursion No. 2.
MONDAY, Sept. 17. Excursion No. 3.

*Eighth Day.* Omnibus transfer from the West Hotel to the station of the Minneapolis & St. Louis Railway, and at 8.45 A. M. leave Minneapolis by that line; arrive at Lake Park 10.00 A. M.; trip by steamer on the lake, returning to the Lake Park Hotel for lunch; leave Lake Park 4.30 P. M.; arrive at St. Paul 6.00 P. M.; transfer by Cook & Son's Omnibus Line from the Minneapolis & St. Louis Railway station to the Hotel Ryan, J. McIntyre, proprietor and manager.

TUESDAY, July 31. Excursion No. 1.
TUESDAY, Aug. 28. Excursion No. 2.
TUESDAY, Sept. 18. Excursion No. 3.

*Ninth Day.*— In St. Paul. In the forenoon carriage ride, with visits to the chief business and residence sections of the city, the Capitol, Summit avenue, the Observatory (midway between St. Paul and Minneapolis and commanding a fine view of both cities), Fort Snelling, etc.; omnibus transfer from the Hotel Ryan to the Union station, and at 4.00 P. M. leave St. Paul *via* Northern Pacific Railroad.

NOTE.—During the journeys over the Northern Pacific Railroad, meals will be furnished in the elegant dining-cars run by the railroad company.

WEDNESDAY, Aug. 1. Excursion No. 1.
WEDNESDAY, Aug. 29. Excursion No. 2.
WEDNESDAY, Sept. 19. Excursion No. 3.

*Tenth Day.*—On Northern Pacific Railroad *en route* through Dakota and Montana.

THURSDAY, Aug. 2. Excursion No. 1.
THURSDAY, Aug. 30. Excursion No. 2.
THURSDAY, Sept. 20. Excursion No. 3.

*Eleventh Day.*—Arrive at Livingston, Mon., 2.00 A. M., and remain on the sleeping-cars undisturbed until morning; breakfast at the Albemarle Hotel; leave Livingston at 8.30 A. M. *via* the National Park Branch of the Northern Pacific Railroad; arrive at Cinnabar 11.30 A. M.; leave Cinnabar by George W. Wakefield's Stage Line at 11.45 A. M.; arrive at Mammoth Hot Springs Hotel 1.00 P. M.

NOTE.—The hotels in the Yellowstone National Park are under the supervision and management of Mr. E. C. Waters.

FRIDAY, Aug. 3. Excursion No. 1.
FRIDAY, Aug. 31. Excursion No. 2.
FRIDAY, Sept. 21. Excursion No. 3.

*Twelfth Day.*—Leave Mammoth Hot Springs in George W. Wakefield's stages at 8.00 A. M., for the tour through the park; arrive at Norris Geyser Basin 12.30 M.; dinner there; leave Norris Geyser Basin 1.30 P. M., passing near the principal geysers in this basin, including the Mud Geyser and the "Monarch," and later near the Gibbon "Paint Pots," Monument Geyser Basin, and the Gibbon Falls; arrive at the Lower Geyser Basin Hotel 6.30 P. M.

SATURDAY, Aug. 4. Excursion No. 1.
SATURDAY, Sept. 1. Excursion No. 2.
SATURDAY, Sept. 22. Excursion No. 3.

*Thirteenth Day.*—Leave Lower Geyser Basin at 8.30 A. M., and visit the "Fountain" Geyser, the "Paint Pots," "Excelsior" Geyser (or "Hell's Half Acre"), "Turquoise" Spring, "Prismatic" Spring, and other objects of interest between the Lower and Upper Geyser Basin; arrive at the Upper Geyser Basin Hotel 11.00 A. M. The hotel is situated near "Old Faithful," "Bee Hive," "Giantess," "Castle," and others of the great geysers.

SUNDAY, Aug. 5. Excursion No. 1.
SUNDAY, Sept. 2. Excursion No. 2.
SUNDAY, Sept. 23. Excursion No. 3.

*Fourteenth Day.*—At Upper Geyser Basin.

MONDAY, Aug. 6. Excursion No. 1.
MONDAY, Sept. 3. Excursion No. 2.
MONDAY, Sept. 24. Excursion No. 3.

*Fifteenth Day.* Leave Upper Geyser Basin 8.00 A. M.; arrive at Norris Geyser Basin 1.00 P. M.; dinner there; leave Norris Geyser Basin 2.00 P. M.; arrive at Grand Cañon Hotel 4.00 P. M.

TUESDAY, Aug. 7. Excursion No. 1.
TUESDAY, Sept. 4. Excursion No. 2.
TUESDAY, Sept. 25. Excursion No. 3.

*Sixteenth Day.*—At the Grand Cañon of the Yellowstone.

WEDNESDAY, Aug. 8. Excursion No. 1.
WEDNESDAY, Sept. 5. Excursion No. 2.
WEDNESDAY, Sept. 26. Excursion No. 3.

*Seventeenth Day.*—Leave Grand Cañon Hotel 10.30 A. M.; arrive at Norris Geyser Basin 12.30 M.; dinner there; leave Norris Geyser Basin 1.30 P. M.; arrive at Mammoth Hot Springs Hotel 5.30 P. M.

THURSDAY, Aug. 9. Excursion No. 1.
THURSDAY, Sept. 6. Excursion No. 2.
THURSDAY, Sept. 27. Excursion No. 3.

*Eighteenth Day.*—Leave Mammoth Hot Springs 2.00 P. M.; arrive at Cinnabar 3.15 P. M.; leave Cinnabar, *via* National Park Branch of the Northern Pacific Railroad, 3.45 P. M.; arrive at Livingston 6.45 P. M.; supper at Albemarle Hotel; remain on the cars at night.

NOTE.—Only Excursion Parties Nos. 1 and 2 return East from this point—Party No. 3 continuing West to the Pacific Coast. We continue the itinerary of the returning parties.

FRIDAY, Aug. 10. Excursion No. 1.
FRIDAY, Sept. 7. Excursion No. 2.

*Ninteenth Day.*—Leave Livingston 3.00 A. M. on main line of Northern Pacific Railroad. Meals will be furnished on the dining-cars run by the railroad company.

SATURDAY, Aug. 11. Excursion No. 1.
SATURDAY, Sept. 8. Excursion No. 2.

*Twentieth Day.*—On the Northern Pacific Railroad *en route* through Dakota and Minnesota, passing through a section of the country previously passed in the night; arrive at St. Paul 5.15 P. M.; transfer by Cook & Son's Omnibus Line from the Union station to the Hotel Ryan.

SUNDAY, Aug. 12. Excursion No. 1.
SUNDAY, Sept. 9. Excursion No. 2.

*Twenty-first Day.*—In St. Paul.

MONDAY, Aug. 13. Excursion No. 1.
MONDAY, Sept. 10. Excursion No. 2.

*Twenty-second Day.*—Omnibus transfer to the Union station, and leave St. Paul at 2.00 P. M. *via* the Chicago, Milwaukee & St. Paul Railway; supper on dining-car run by the railway company.

TUESDAY, Aug. 14. Excursion No. 1.
TUESDAY, Sept. 11. Excursion No. 2.

*Twenty-third Day.* Arrive at Chicago 7.00 A. M.; transfer by Parmelee's Omnibus Line from the Union station to the Sherman House; breakfast and dinner at the Sherman House; omnibus transfer from the hotel to the Dearborn station (Polk street and Fourth avenue), and at 3.25 P. M. leave Chicago *via* Chicago & Grand Trunk Railway, in Wagner palace sleeping-cars: supper on Chicago & Grand Trunk Railway dining-car.

NOTE. — Members of the party who return independently from Chicago will be required to exchange their east-bound sleeping-car coupons at the city ticket-office of the Chicago & Grand Trunk Railway, 103 South Clark street, Chicago, E. H. Hughes, agent (to whom all applications in advance for sleeping-berths should be addressed), or at the station ticket-office, Polk and Fourth avenue. The regular train leaves Chicago for Boston at 8.15 P. M. Persons desirous of availing themselves of the "stop-over" privilege at Niagara Falls should take the "Limited Express," leaving Chicago at 3.25 P. M., and, arriving at Niagara Falls the next morning, await there the arrival of the Atlantic express in the afternoon. Niagara Falls is the only point east of Chicago where "stop-over" privileges are allowed.

WEDNESDAY, Aug. 15, Excursion No. 1.
WEDNESDAY, Sept. 12. Excursion No. 2.

*Twenty-fourth Day.*— Arrive at Suspension Bridge 8.20 A. M.; breakfast at the Grand Trunk Railway station dining-rooms; arrive at Niagara Falls, N. Y., 8.53 A. M., and remain there until afternoon; dinner at the International Hotel or Cataract House; leave Niagara Falls 2.16 P. M., *via* New York Central & Hudson River Railroad, and Buffalo 3.10 P. M., *via* West Shore Railroad; arrive at Newark, N. Y., 6.40 P. M.; supper at the Newark Hotel; leave Newark 7.50 P. M. *via* West Shore Railroad.

NOTE.—Passengers returning from Niagara Falls independently will find it more convenient to leave Niagara Falls at 3.52 P. M. (on the Atlantic express) and take supper at Syracuse.

THURSDAY, Aug. 16. Excursion No. 1.
THURSDAY, Sept. 13. Excursion No. 2.

*Twenty-fifth Day.*— From Rotterdam Junction eastward on Fitchburg Railroad; breakfast at the station dining-rooms, Athol, Mass., W. E. Wood, proprietor; arrive in Boston (Fitchburg station, Causeway street) 9.35 A. M.

## ITINERARY OF THE SEPTEMBER PARTY (NO. 3) FROM LIVINGSTON WESTWARD.

After completing the round of the Yellowstone National Park (see preceding itinerary) Excursion Party No. 3 will continue their journey westward as follows: —

FRIDAY, Sept. 28. *Nineteenth Day.*— Leave Livingston 2.00 A. M. on main line of Northern Pacific Railroad; during the journey westward, meals will be furnished on a Northern Pacific Railroad dining-car. *En route* through Montana and Idaho, crossing the Rocky Mountains by daylight.

SATURDAY, Sept. 29. *Twentieth Day.*— On the Northern Pacific Railroad *en route* through Washington Territory, passing over the picturesque Cascade Division by daylight; arrive at Tacoma 9.40 P. M.; omnibus transfer to The Tacoma, W. D. Tyler, manager.

SUNDAY, Sept. 30. *Twenty-first Day.*— At Tacoma.

MONDAY, Oct. 1. *Twenty-second Day.*— At Tacoma.

TUESDAY, Oct. 2. *Twenty-third Day.* — Omnibus transfer from The Tacoma to the steamboat wharf, and at 8.30 A. M. leave Tacoma on one of the fine steamers of the Oregon Railway & Navigation Company; arrive at Victoria, B. C., 5.30 P. M.; carriage transfer from the steamboat wharf to The Driard, Messrs. Redon & Hartnegel, proprietors.

WEDNESDAY, Oct. 3. *Twenty-fourth Day.*— At Victoria. Carriage ride, visiting various parts of the city, including Beacon Hill, Government House, the Government Buildings, etc., and also Esquimalt (the British naval station) and the Gorge.

THURSDAY, Oct. 4. *Twenty-fifth Day.*— Leave Victoria by steamer of Oregon Railway & Navigation Company 5.00 A. M.; meals on board the boat; arrive at Seattle 12.15 P. M.; leave Seattle 3.30 P. M.; arrive in Tacoma 5.30 P. M.; omnibus transfer from the steamboat wharf to The Tacoma.

FRIDAY, Oct. 5. *Twenty-sixth Day.*— Omnibus transfer from The Tacoma to the Pacific avenue station of the Northern Pacific Railroad, and at 7.20 A. M. leave Tacoma by said line; dinner on board the ferry steamer "Tacoma" while crossing the Columbia River at Kalama; arrive at Portland, Or.,

2.30 P. M.; cross the Willamette River by ferry, and at 3.00 P. M. leave East Portland in Pullman palace sleeping-cars *via* the Oregon Railway & Navigation Company's Railway Line; arrive at Dalles City 7.10 P. M.; supper at the Umatilla House, Messrs. Handley & Sinnott, proprietors; remain over night on the sleeping-cars, which will be side-tracked near the station.

SATURDAY, Oct. 6. *Twenty-seventh Day.*— Breakfast at the Umatilla House, Dalles City; leave Dalles City 8.00 A. M. on board one of the Oregon Railway & Navigation Company's steamers for a day's trip down the noble Columbia River; arrive at the Upper Cascades 11.30 A. M.; transfer by the Oregon Railway & Navigation Company's Portage Railway (narrow gauge) to the Lower Cascades, and leave that point by steamer at 1.15 P. M.; dinner on board the boat; arrive at Portland 6.00 P. M.; omnibus transfer from the Ash street wharf to The Esmond, Thomas Guinean, proprietor.

SUNDAY, Oct. 7. *Twenty-eighth Day.*— At Portland.

MONDAY, Oct. 8. *Twenty-ninth Day.*— At Portland. Carriage ride during the forenoon, visiting the most attractive business and residence sections of the city and the city park, from whence a fine view is had of the Willamette River and Mounts Hood and St. Helen's; omnibus transfer from The Esmond to East Portland, and at 4.00 P. M. leave *via* the Oregon & California Railroad — the Southern Pacific Company's new "Overland Line" between Oregon and California — in Pullman palace sleeping-cars; arrive at Albany, Or., 7.45 P. M.; supper at the station dining-rooms.

TUESDAY, Oct. 9. *Thirtieth Day.* — On the Southern Pacific Company's Overland Oregon Line *en route* through Oregon and California, and over the most picturesque sections near Mount Shasta; arrive at Medford, Or., 7.45 A. M.; breakfast at the station dining-rooms; dinner at Cole's; arrive at Sisson 4.30 P. M.; supper at station dining-rooms.

WEDNESDAY, Oct. 10. *Thirty-first Day.*— Arrive at Oakland Pier 7.15 A. M. and San Francisco by ferry 7.40 A. M.; transfer by the United Carriage Company from the ferry landing, foot of Market street, to the Palace Hotel, C. H. Livingston, manager.

The further itinerary will include a stay in San Francisco, visits to Monterey, Santa, Cruz, Napa Soda Springs, and Oakland; a tour of Southern California, with visits to Santa Barbara, Santa Monica, Los Angeles, and Pasadena, and a return eastward,

over the Atchison, Topeka & Santa Fe Railroad, through Arizona, New Mexico, Colorado, Kansas, etc., and also time for a trip to the Yosemite Valley, if desired, the entire tour from Boston back to Boston occupying about sixty-five days. The return tickets will permit the holders to remain in California through the winter. A full descriptive circular of this excursion, and of a later excursion, over the Northern Pacific Railroad across the continent, will be issued, and the same will be sent to any address.

## Distance Table of the Yellowstone National Park Tour.

| | Miles. |
|---|---|
| From Boston to Rotterdam Junction, N. Y., Fitchburg Railroad | 212 |
| " Rotterdam Junction to Suspension Bridge, West Shore Railroad | 290 |
| " Suspension Bridge to Port Huron, Mich., Great Western Division of the Grand Trunk Railway | 181 |
| " Port Huron to Chicago, Chicago & Grand Trunk Railway | 335 |
| " Chicago to Milwaukee, and Milwaukee to Kilbourn City, Chicago, Milwaukee & St. Paul Railway | 194 |
| " Kilbourn City, through the Dells of the Wisconsin and return, steamer of the "Dells Queen" Company | 10 |
| " Kilbourn City to La Crosse, Wis., and La Crosse to Minneapolis, Chicago, Milwaukee & St. Paul Railway | 226 |
| " Minneapolis to Lake Park, Minneapolis & St. Louis Railway | 20 |
| " Lake Park to Upper Lake and return, by steamer | 20 |
| " Lake Park to St. Paul, Minneapolis & St. Louis Railway | 30 |
| " St. Paul to Livingston, Mon., Northern Pacific Railroad | 1,032 |
| " Livingston to Cinnabar, Yellowstone Park Branch of Northern Pacific Railroad | 51 |
| " Cinnabar to Mammoth Hot Springs, stage | 7 |
| " Mammoth Hot Springs to Lower Geyser Basin, stage | 40 |
| " Lower Geyser Basin to Upper Geyser Basin, *via* Fountain Geyser and old road, stage | 10 |
| Distances carried forward | 2,658 |

| | Miles. |
|---|---|
| Distances brought forward | 2,658 |
| From Upper Geyser Basin to Lower Geyser Basin, *via* new road, Lower Geyser Basin to Norris Geyser Basin, and Norris Geyser Basin to Yellowstone Falls and Grand Cañon, stage | 41 |
| " Yellowstone Falls and Grand Cañon to Mammoth Hot Springs, stage | 33 |
| " Mammoth Hot Springs to Cinnabar, stage | 7 |
| " Cinnabar to Livingston, Yellowstone Park Branch of Northern Pacific Railroad | 51 |
| " Livingston to St. Paul, Northern Pacific Railroad (main line) | 1,032 |
| " St. Paul to Chicago, Chicago, Milwaukee & St. Paul Railway | 410 |
| " Chicago to Port Huron, Mich., Chicago & Grand Trunk Railway | 335 |
| " Port Huron, Mich., to Suspension Bridge, Great Western Division of Grand Trunk Railway | 181 |
| " Suspension Bridge to Rotterdam Junction, N. Y., West Shore Railroad | 290 |
| " Rotterdam Junction, N. Y., to Boston, Fitchburg Railroad | 212 |
| Total | 5,250 |

The carriage excursions which are to be furnished in several of the cities are not included in the above enumeration.

In the course of the tour the excursion parties will pass through parts of the following States and Territories: *States* — Massachusetts, Vermont, New York, Michigan, Indiana, Illinois, Wisconsin, and Minnesota (8); *Territories* — Dakota, Montana, and Wyoming (3); and also the Province of Ontario in Canada.

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## Puget Sound and the Pacific Northwest.

The distance from Livingston, Mon., to Portland, Or., is 881 miles; and from Livingston to Tacoma, W. Ter., *via* the new Cascade Division of the Northern Pacific Railroad, 909 miles. On arriving at Dalles City passengers have the choice of completing their journey to Portland either by steamer or rail, either route

serving to show them the grand scenery of the Columbia River; or, on the return, a steamer trip can be taken from Portland to The Dalles, the cars being intercepted at the latter point. From Portland a division of the Northern Pacific Railroad extends to Tacoma (145 miles). At Tacoma the Puget Sound Line of steamers connects for Seattle, Port Townsend, Victoria (the capital of British Columbia), etc. A magnificent hotel, "The Tacoma," has been built at Tacoma, and placed under the management of Mr. W. D. Tyler, a well-known hotel man from the East. A side trip can be made from Tacoma (partly by rail and partly on horseback) to the glaciers on Mount Tacoma. This mountain is 14,444 feet high.

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## Alaska.

During the summer and early autumn, the Pacific Coast Steamship Company sends a line of excursion steamers to Alaska. The voyage is made almost wholly through inland bays and sounds, and detours will be made up unfrequented arms of the sea for the purpose of viewing the glaciers and other grand scenic features. The scenery in the northern latitudes is very picturesque, the shores of Alaska — both the mainland and the islands of the great Alexander Archipelago — being mountainous. Of the interior little is known. The voyage, as already intimated, is made in the smooth and peaceful waters of a succession of bays and sounds which line the coast of British Columbia and the southern part of Alaska. The excursion steamers in service during the summer and autumn season of 1888 are the "G. W. Elder" and the "Ancon." The former will leave Seattle, Port Townsend, and Victoria August 13 and September 10, returning to Victoria and Port Townsend August 31 and September 28. The "Ancon" will leave Tacoma and the other sound ports August 27 and September 24, and will return September 14 and October 12. Round-trip tickets are sold as follows: From

Tacoma, $100; from Seattle, $98; from Port Townsend or Victoria, $95; from Portland, Or., $110.

Persons desirous of joining our Yellowstone National Park parties are advised to enroll their name early. Tickets must be taken on or before Wednesday, July 18, for Excursion No. 1, Wednesday, August 15, for Excursion No. 2, and Wednesday, September 5, for Excursion No. 3.

Souvenir lists of the members of each party will be prepared for the use and convenience of the excursionists.

W. RAYMOND.
I. A. WHITCOMB.

☞ Tickets for the excursion, additional copies of this circular, and all needed information can be obtained of

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W. RAYMOND, 296 WASHINGTON ST. (OPPOSITE SCHOOL ST.), BOSTON, MASS.

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New York Office, 257 Broadway,

**J. M. JENKINS, Agent.**

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**PHILADELPHIA OFFICE,**
**111 SOUTH NINTH STREET, under Continental Hotel,**
RAYMOND & WHITCOMB.

**London Office, 142 Strand, W. C.**
**HENRY GAZE & SON,**
**European Agents for Raymond's American Excursions.**

## Clothing for the Journey.

Although the excursions are to be made in the warm months of the year, there will be reason to guard against cool weather within the Yellowstone National Park, where frosts are of almost nightly occurrence through the summer season. It would be a good plan to carry a suit of clothing especially for service within the park, and this should be of such stout material as to stand a bit of "rough work," if any such be thought desirable in the tramps among the springs and geysers. Stout boots or shoes are prime necessities, inasmuch as the surface of the geyser mounds, and in many places large tracts of territory to be walked over in visiting the chief points of interest, are rough. Some persons may also find rubber overshoes of use, as there are many wet places around the geysers and hot springs. Gentlemen will find woolen traveling shirts far more serviceable than white ones. There are no "dress occasions" within the park, at least beyond the hotel at Mammoth Hot Springs; and only to that point will the heavy or checked luggage be conveyed, hand parcels only being taken in the wagons which carry the visitors around the park. Rubber overcoats and waterproofs will, of course, suggest themselves. "Dusters" will doubtless be of use in the railway journeys, as they are in all parts of the country.

## Guide Books, etc.

*The Great Northwest*, a guide book and itinerary for the use of travelers over the Northern Pacific Railroad and its allied lines, and the *Official Guide to the Yellowstone National Park*, both published by Riley Brothers, St. Paul, are the best works of their class. Some of the publications of the Northern Pacific Railroad Company intended to attract attention to the park have been prepared with much care, and a map published upon the back of a "folder" detailing *Alice's Adventures in the New Wonderland* is the best general map obtainable.

*The Fifth Annual United States Geological Report* (for 1871) contains Dr. F. V. Hayden's original account of the Yellowstone Park region; and the subsequent volumes also contain much relating thereto, the fullest and most exhaustive account yet prepared appearing in the most recently published *Report* (the Twelfth for 1878). Part II. (503 pages), together with numerous maps, includes interesting contributions by W. H. Holmes on the Geology of the Park, Dr. A. C. Peale on Thermal Springs, and Henry Gannett on the Topography of the Park.

The reports of Captain William A. Jones, General W. F. Reynolds, Rossiter W. Raymond, Captain J. W. Barlow, Captain D. P. Heap, Professor F. B. Comstock, General W. T. Sherman, General P. H. Sheridan, Superintendents N. P. Langford, P. W. Norris, and P. H. Conger, and others will be found in documents printed by order of the government.

*The American Encyclopædia*, *Johnson's New Universal Encyclopædia*, *Picturesque America*, *Scribner's Magazine* for 1871, '72, and '73, *Lippincott's Magazine* for 1880, *The Southern Magazine* for 1871, *Appleton's Journal* for 1881, *Nature* for 1872, *Chamber's Journal* for 1882, and the *United States Census Report* for 1880 all contain articles relating to the park; and the later works on geology by Geike, Dana, and Le Conte have scientific references to its marvels.

There are many books of travel relating to the park, and among them are *The Great Divide*, by Lord Dunraven; James Richardson's *Wonders of the Yellowstone; Horseback Rides through the Yellowstone Park*, by H. J. Norton; *Camp and Cabin*, by Rossiter W. Raymond; *Rambles in Wonderland*, by Edwin J. Stanley; *A Pilgrimage to Geyser Land; or, Montana on Muleback*, by Ellsworth Spencer; and *Rambles Overland*, by Rev. Almond Gunnison, D. D.

A complete list of all works having reference to the Yellowstone Park (published previous to 1882), and also lists of authorities on the thermal springs of all parts of the world, will be found in *Hayden's Twelfth Report* (Part II., pages 427–499).

*A History of the Northern Pacific Railroad*, by E. V. Smalley, is an account of this great enterprise from the time of its inception, in 1834, to the opening of the road, in 1883.

F. Jay Haynes, of Fargo, Dak., has made a specialty of photographing the geysers and other wonders of the park. His views are sold at Mammoth Hot Springs. Catalogues will be sent from Fargo on application.

## Time on Which Trains and Stages Are Run.

Between Boston and Fort Gratiot (Port Huron), Mich., Eastern or 75th meridian time; between Fort Gratiot and Mandan, Dak., Central or 90th meridian time, one hour slower than Eastern time; from Mandan westward and through the Yellowstone National Park, Mountain or 105 meridian time, two hours slower than Eastern time.

# FOUR GRAND SUMMER AND AUTUMN TOURS

THROUGH THE

# ROCKY MOUNTAINS,

## With visits to the most Picturesque Passes, Canons, Gorges, and Health and Pleasure Resorts in Colorado.

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### DATES OF DEPARTURE AND RETURN.

First Party to leave Boston Monday, July 23; return Friday, August 17.
Second Party to leave Boston Monday, August 20; return Friday, August 31.
Third Party to leave Boston Monday, September 10; return Friday, October 5.
Fourth Party to leave Boston Tuesday, October 9; return Friday, November 9.

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We have arranged a series of four summer and early autumn tours through the most picturesque and interesting sections of the Rocky Mountains, with visits to Denver, Silver Plume, Georgetown, Clear Creek Cañon, Manitou Springs, the Garden of the Gods, Pueblo, the Veta Pass, Alamosa, the Toltec Gorge, Durango, the Cañon of the Las Animas, Silverton, Ouray, Montrose, the Black Cañon of the Gunnison, Marshall Pass, and the Royal Gorge. This is one of the most comprehensive tours of the "Rockies" ever planned, and the round of travel will be made in the most comfortable manner possible. The most picturesque points upon both the Denver & Rio Grande and the Union Pacific narrow-gauge lines will be included. The itinerary has

been so arranged that while in Colorado the travel will be wholly by daylight, every night being passed at a hotel.

A special circular giving full details of the trip will be sent on application to

W. RAYMOND, 296 WASHINGTON ST. (OPPOSITE SCHOOL ST.), BOSTON, MASS.

## Summer Tours.

There will be seventeen summer excursions to the most famous mountain, lake, river, seaside, and spring resorts in New England, Canada, and the Middle States, in the month of July, and six in August.

Special circulars will be sent to any address.

## October Trip over the Northern Pacific Railroad to the Pacific Northwest and California.

A party will leave Boston Tuesday, October 9, for a grand tour over the entire length of the Northern Pacific Railroad, from St. Paul to Puget Sound, and thence through the Puget Sound country, Washington Territory, British Columbia, Oregon, California, etc., the whole tour occupying about fifty days, the return tickets being good for the eastward journey over the Atchison, Topeka & Santa Fe Railroad at any time in the winter or spring. A special circular giving details of this excursion (and also of the September tour) will be issued at an early date.

## Annual Winter Trips to California.

Particulars regarding our annual series of Winter Trips to California for the season of 1888–89 will be announced at an early date.

# HOW OUR PARTIES TRAVEL.

There are several thousand ladies and gentlemen residing in various parts of the country to whom any special explanation under this head will appear superfluous. These comprise the many who have accompanied us on excursions to California, Mexico, the Yellowstone Park, Washington, Richmond, Saratoga, Niagara Falls, the White Mountains, through Canada, etc. For the benefit of persons who may not have had this experience, a description of our methods is herewith given:—

In the first place care and judgment is used in the formation of a party. It is always our endeavor to bring together tourists of a refined and cultivated class, and to make up our traveling parties of persons of congenial tastes, so that the social element, as well as that of travel and sight-seeing, shall constitute a source of enjoyment. Our success in these particulars has always been very gratifying, and the incidental pleasures of the various trips have been in no small degree enhanced by select and agreeable companionship. Our California parties, and also some of our summer bands of excursionists, have held reunions, and in some instances formed themselves into associations for such purposes. In connection with many excursions, musical and literary entertainments of a high order have been given by artists of acknowledged talent. While these and many other special pleasures are enjoyed in common, a little family group, or party of friends, may be as much by itself, and even

more than in ordinary traveling. Rooming at hotels and on steamers, the arrangement of carriage-drives and other details are matters of previous adjustment, so that the wishes of those who are desirous of being placed together, or in contiguity, are regarded to as great an extent as possible. In long journeys, where sleeping-cars or drawing-room cars are employed, persons are ensured the same places in a manner that would be simply impossible in ordinary traveling. A little party thus secures accommodations collectively, or together, without encroaching in any way upon the rights of others, and without any special effort of its own. No tourist who has had experience in crowded railway-cars, steamers and hotels, can fail to see the advantage of having the interests and welfare of himself and companions carefully looked after by another, while those who are benefited by such watchfulness are left to the full enjoyment of their time, untroubled by anxiety as to their ability to secure rooms at their next halting-place, or seats and berths at the next change of train. With our excursion parties these changes of cars are more frequently avoided than in any other way, since through trains are sometimes run for their sole accommodation, and troublesome transfers are often prevented by establishing connections not attainable in the ordinary train service.

One or more experienced conductors accompany every party, and the travelers are relieved of all personal care and responsibility. Arrangements have been made in advance, and there need be no anxiety as to transportation facilities, meals *en route*, hotel accommodations, carriages, transfer and care of baggage, etc. All these things, and many others, are attended to by the conductor and his assistants, and every incidental item of the excursion, as well as the railway travel, is covered by the book of coupons, each separate coupon indicating precisely what the holder is entitled to in return therefor. While other travelers are hurrying to and fro in the endeavor to

secure seats, sleeping-berths, conveyances, or rooms, putting forth every effort to outstrip and outdo his neighbor, a member of a "Raymond Party" rests serenely, knowing that all requisite accommodations are reserved for him. The hotel rooming is done in advance, and a little card handed him in the cars informs him where he is domiciled; while his trunk or valise follows him, or perhaps precedes him to his apartment. Registering one's name in an ordinary manner is not a necessity, the card serving as all the introduction necessary and as an immediate passport to the room. Special cars and often special trains are at the service of the party to facilitate the comfort, seclusion, and convenience of its members. Special excursions are made to important points, and thus time, as well as money, is saved, since independent or ordinary travelers could not command such facilities or attention. With old tourists, as well as with inexperienced ones, this mode of travel finds favor, for they are left free and untrammeled to the enjoyment of their journey and sight-seeing. Ladies journey by this method easier than by any other, inasmuch as they are relieved of many petty cares and annoyances inseparable from ordinary travel. They are enabled, not only to travel without special escorts, but also without becoming dependent on other travelers. Arrangements are made in advance, not only for the comfort of the party as a whole, but for each individual member. Having paid for the entire excursion a member of one of our parties has no need to make any further expenditures of money, except for the gratification of individual tastes in the purchase of souvenirs, gifts, etc.; all travel and hotel accommodations, with transfers and incidental meals, being covered by the purchased ticket.